The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

DIRECTORY

OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

1932

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Original Articles

THE COUNTY MEDICAL SOCIETY AND ITS FUNCTIONS*

President's Address

D. A. RHINEHART, M. D., Little Rock

"No class of men needs friction so much as physicians; no class gets less. The daily round of a practitioner tends to develop an egoism of the most intense kind, to which there is no antidote. The few setbacks are forgotten, the mistakes are often buried, and ten years of successful work tend to make a man touchy, dogmatic, intolerant of correction, and abominably self-centered. To this mental attitude the medical society is the best corrective . . . ."—Osler.

This quotation is taken from the writings of Wm. Osler and is from his presidential address delivered before the Medical and Chirurgical Faculty of Maryland in Baltimore in 1897. It is a severe indictment of the medical profession. It sets out in no unmistakable terms the most important psychological imperfection of practicing physicians. It describes a condition and suggests a remedy. It was true then, and, let us hope, to a less degree, it is true today.

Harking back to student days, we can remember the remarkable *esprit de corps* that existed among us for our class, our medical school, our university, and any other groups or organizations to which we belonged. In no other class was this so well developed as among the students of the medical schools. I well remember an occasion when one snowball, inadvertently thrown by a law student into the ranks of the medical students, completely disrupted a dignified academic procession, until, at the conclusion of the battle that followed, all the law students had sought safety behind one of the neighboring buildings.

Graduation, the completion of a hospital internship, and a few years in the practice of medicine do something to this spirit that is most unfortunate. Along with the banker, the lawyer, the minister and some of the school teachers, the physcian is a personage in his community. The banker's work is supervised by his stockholders and board of directors; the lawyer appears before the judge, often older, wiser, and more experienced than he; the minister must satisfy his governing board and the heresy hunters in his congregation, and the teacher is responsible to the superintendent and the school board. Of these, only the physician performs his daily tasks, unsupervised and alone, without anyone to call attention to his errors or serve in a monitorial capacity over his activities.

To most people, sickness is a mysterious and terrible visitation, fraught with dread of an unfavorable outcome. In their anxiety a physician is called and trust and confidence are placed in him. They hang upon his very words, carry out his instructions to the smallest detail, consult with him on the slightest provocation, and, when the danger has passed credit him with performing a miracle and too often forget to pay his bill. After repeated experiences of this kind, the physician appears to his patients and their relatives as a superman, endowed with some of the attributes of deity.

Adulation and praise of his skill as a physician come from his patients in increasing quantities. Soon he may fail to realize that it is the physician in him that is so admired and exalted, and, unless there be some hindering influence, he takes unto himself as a man the attributes his patients endow him with as a physician, becoming just as Osler described him. After ten years of successful practice, he becomes egotistical, touchy, dogmatic, intolerant of criticism, self-centered, and the rankest kind of an individualist. Perhaps he should not be too severely censored, for it is the conditions under which he works and the kind of occupation he is engaged in

*President's Address before the Fifty-Seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

that are responsible for the development of this attitude.

We often hear of the jealousy of physicians for each other. I doubt whether jealousy exactly describes the feeling that so often exists. When in its worst form, it is quite composite in its make-up. A physician badly afflicted believes in his personal and professional superiority; he has a disdain for the skill and ability of others, a malicious grudging of the success of a competitor, a suspicion of the rectitude of a competitor's moral and ethical conduct, a distrust of any therapeutic procedure not having his individual approval; he is willing to believe any uncomplimentary report of another physician; he has a tendency to gloat over mistakes and misfortunes not his own, with an intolerance toward any suggestion or criticism. In short, such a physician believes that most others are half charlatans, mountebanks, and incompetents, while he is the only true disciple of Esculapius and Hippocrates in his community.

This picture may seem overdrawn, yet I am sure that each of us can think of some other physician, down the street or around the corner, that it accurately describes; and he, if he be here, is equally certain that it is an excellent portrait of some one of us. The truth is that each of us has these attributes and qualities to greater or less degree, depending on our mental processes and psychical makeup and on our contact with other physicians. Friction with other physicians is the only remedy for this ailment. I believe it can easily be established that those physicians who frequently rub elbows with their fellows in medical society meetings, in hospital practice, in hospital staff conferences, and the like are less apt to be seriously afflicted than those who do not have these associations.

"To this mental attitude the medical society is the best corrective." In the State of Arkansas this means the county medical societies. While it is true that some few communities are large enough for hospital staff and other medical gatherings, the greatest number in the Arkansas Medical Society must depend for frequent fraternizing with other physicians on the meetings of their county medical groups.

County medical societies are important organizations. They are the units upon which all other medical organizations in this country are erected. They are the component parts of the district and State societies throughout this nation. Membership in them is a prerequisite for admission to almost all special medical societies. They provide the most frequent contacts for physicians with each other. It is in them that the leadership in district, State, and national medical organizations originates and has its early development. In them, in a great measure, physicians are able to discuss the medical problems of their own community and to learn of progress in the science and art of diagnosing and treating disease.

I do not know at this time the status of all the county medical societies in the Arkansas Medical Society. Until about a month ago, I accepted all invitations to medical society meetings that were tendered me. I have been told that my trail has led where the President of the Arkansas Medical Society has never been seen before. From first-hand information I know about some county societies and I have had reports from some others. I have examined the roster of the members of the Arkansas Medical Society and have compared it with the physicians practicing in the different counties as listed in the 1931 edition of the Directory of the American Medical Association. From this experience and information I know what constitutes a good county medical society. I can describe a good medical society meeting, and from my knowledge of the economic affairs with which physicians have to deal, I think I can see the need for active and interested medical societies in all counties of the state.

A good county medical society is one that has all the reputable physicians in that county as members, not because they have been solicited to be members, but because of the value of their memberships. It is one that has twelve meetings each year, one each month except possibly the month of the State Society meeting, with at least seventy-five per cent of the membership present at each meeting. It is one that has an interesting program each time it meets and one that is interested and takes an active part in the affairs of its community. It has an active Woman's Auxiliary. Occasionally one may be good without an auxiliary, just as there may be some good bachelors, but as a rule they are better with the helping influence of a woman's organization.

Proficiency in a county medical society is

not often the result of the interest of all the members; usually a few men, occasionally a single man, is responsible for it. When one man runs a county medical society and does a good job of it, he is most often the secretary. I can name a number of good societies in this state with the secretary that has made each one good; I can name others that have been revived as a result of the election of a new secretary; I can also name others that have declined because a good secretary has been replaced by one not so proficient. Presidents and other officials may come and go, but good secretaries should be like perennial flowers, encouraged to blossom each succeeding year.

I know of other instances wherein a few men, even a single man, is the disturbing influence in a society that keeps it disrupted an inactive. These are the self-centered, bigoted, touchy, intolerant creatures described early in this address. What to do with them is often quite a problem. They may be ignored, ostracized, or converted. Perhaps conversion is the easiest and productive, of the most good. There is no single known way that this can be done. Each case is an individual problem requiring its own therapeutic applications.

A good county medical society holds its meeting at six or six-thirty in the evening. After half an hour spent in greetings and such other activities known best to good medical society men, it eats. Nothing produces good fellowship and a feeling of euphoria, nor such things as new Easter dresses, so readily as good food. The phenominal growth and success of the civic clubs in this country and elsewhere in a large measure is attributable to the food served at the meetings. Good medical societies profit by this experience and first satisfy the physical man before attempting to enthuse, instruct, or interest him.

Society programs should have variety. The set discourse, dignified by the name of "paper," probably has about seen its period of usefulness. Rarely entertaining, often not instructive, usually compiled from one or more medical books, a steady diet of papers will give intellectual indigestion to any medical society. Discussions are much better, particularly if they are based on the personal experience of some one of the members, with one or more illustrative case reports included. Topics assigned for discussion may be used; case reports are always interesting, and to report mistakes or errors in diagnoses or treatment with the lessons learned thereby is unusually engaging. Good societies, especially those with a small attendance, allow everyone to be heard, for, like children's games, participation assures interest and approbation.

Guest speakers from larger cities and towns just now seem to be the vogue. Usually these are specialists who discuss some phase of their particular line of work. When of interest to his hearers and not too technical, these messages are well received. Within the last year, as an innovation, joint meetings of more than one society have been held. These too have proved interesting. Some arrangement whereby good programs presented before one might be available for other societies would be helpful. Speaker's bureaus have been found useful in Illinois and other places. One type of program that should be more often used is the reporting of new and valuable additions to medical knowledge in reviews of recent literature.

There is a definite tendency for society programs to be too serious. A jovial and friendly spirit keeps up interest, for all work and no play makes Jack a dull boy, even if Jack be gray around the temples, paunchy, and burdened with the cares of a weary world.

Just at this time there is a need for a strong, active coherent medical society in every county in Arkansas. Leadership in medical affairs is needed more than ever before. Logically this should come from the medical profession and it should originate in organized medical bodies. There is a rapid growth of popular interest in disease prevention, in the so-called high cost of sickness, in the medical care of children, some of which is apt to have a profound influence on the economic status of physicians in the different communities. Unless leadership in these matters comes from within the medical societies, it will be found in some source outside them, possibly resulting in lowering the quality of the resultant medical services and seriously affecting the economic status of practicing physicians.

For illustration, consider the recent White House Conference on Child Health and Protection. All interested governmental, social, and other agencies were represented. As a result of this conference, a State Council has been organized and it is planned to organize

a similar council in every county. The work of these councils is to be divided into divisions; medical care and public health and administration, two of these, vitally involve the medical profession. When these county councils are organized, physicians will be invited to participate and these invitations will come through the county medical societies. The societies should be prepared to accept these invitations when they arrive and should give serious thought to the medical and public health service that is to be provided through these agencies.

Clinics of various kinds have been held in different sections of the State. Chiefly these have been tonsil-removing clinics held under the auspices of the county health authorities and the Parent-Teacher organizations, chest clinics conducted by the Arkansas Tuberculosis Association, and clinics for crippled children. The control of these clinics properly belongs within the functions of the county medical societies, and each society, if it has not done so, should immediately formulate plans for holding and participating in them. Blind opposition to them will be of little avail, for many of them will be held in spite of opposition.

In some sections of the state, contract practice is becoming established. A pertinent article on this subject is the one by Leland in the Journal of the American Medical Association for March 5, 1932. Physicians everywhere should interest themselves in this subject and become familiar with its good and bad features, for no one can foretell just when some undesirable scheme may be established in his own community.

The Committee on the Cost of Medical Care has been conducting investigations into the cost of illness in the United States since 1927. The medical profession has not been discredited in any way by the findings of this Committee. Its final report is expected this year. In the publications, there has been some inkling that the final report of the Committee will contain suggestions for lowering the cost of medical care through some new type of medical service with county medical societies as units for the provision of this service. For this reason, this final report should receive the careful study of all county medical societies.

I have a profound faith in physicians. Intimate contact with them for a number of years has convinced me that there are no more honorable, charitable, conscientious, and unselfish men anywhere. Because of antipathies for each other, a development of the service they render, often they are their own worst enemies. I am a firm believer in medical organizations, particularly county medical societies. I believe that each county should have an active society composed of all eligible men. Functioning county societies rub the rough spots off their members, provide leadership in medical affairs, afford a forum for open and frank discussions, and just now seem to be an economic necessity in every county.

THE EFFECT OF ECONOMIC STRESS ON HEALTH

The influence of economic conditions is so well established that students of public health have been greatly surprised at the continued decrease in the general death rate in the face of the unfavorable conditions which have prevailed during the past two years. Even in tuberculosis, a disease ordinarily considered a fairly good index of economic conditions, the mortality has continued to decline.

Perhaps not sufficient time has elapsed to cause a change in mortality rates, for naturally there would be some lag in the course of the mortality curve. Morbidity rates should react more promptly, but of these only that for tuberculosis is of service, for practically all the other reportable diseases are acute communicable diseases whose prevalance is influenced mainly by factors other than economic.—Bulletin Dept. of Health, City of New York.

NOTICE

Within a month or two we will publish a roster of the members of the Arkansas Medical Society. Any member who has not paid his dues for 1932 will be omitted from this list unless he immediately remits to his county secretary.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

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WILLIAM R. BATHURST, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

THE CHIEF FUNCTIONS OF THE AUXILIARY

SOCIAL, to promote good fellowship, aid in entertainments at medical meetings, and increase attendance at such meetings.

PHILANTHROPIC, to give community service wherever such service is needed, particularly service related to the work of the medical profession.

LEGISLATIVE, education in medical and health laws and participation in such legislation as is requested or approved by the Medical Society to which we are auxiliary.

EDUCATIONAL, to aid the medical profession in its Health Education work through organizations to which we belong.

(a) by becoming informed ourselves.

(b) by accepting positions of leadership in such organizations, particularly on health committees, so that authentic literature may be chosen for programs and for distribution, and that informed speakers may be selected.

(c) by promoting the distribution of Hygeia, the health magazine published by the American Medical Association.

—Mrs. Arthur McGlothlan, St. Joseph, Mo., President, Woman's Auxiliary to the American Medical Association.

Editorial

PRESIDENT RHINEHART'S ADDRESS TO THE GENERAL SESSION

In this article, published on the first page of this issue, Dr. Rhinehart stresses the main point first brought to the attention of the profession by Dr. Osler so many years ago. Physicians ought to have social intercourse with laymen, of course, but such intercourse does not create the "friction" needed by him to improve his practice and skill. There is constant evolution and improvement in all professions and the physician does not keep thoroughly abreast of the times merely by reading. Many minor details of medical science circulate mostly by gossip in medical societies and circles of medical practitioners. He hears verbal reports of success or failures of certain methods which may be of interest to him; while defending his own methods, he will hear the best points of contrary methods explained; in other words, he gets both sides of a proposition and this "friction" often proves of immense value in his daily work.

"To this mental attitude . . .," quoting Dr. Osler, "the medical society is the best corrective." In the state of Arkansas this means the county medical societies. While it is true that some few communities are large enough for hospital staff and other medical gatherings, the greatest number in the Arkansas Medical Society must depend for frequent fraternizing with other physicians on meetings of their county medical groups.

The "greatest number" should be emphasized and reported, because it is for the best interest of the greatest number of physicians that this article is intended. Where there are hospital staffs and large groups, it is an easy matter to associate often with practitioners. In some counties it is often necessary to travel many miles and lose some time to attend meetings. Yet, that is the physician's best and often only opportunity to mingle with his brethren of the profession. Unless he is willing to keep informed of the county society's meetings and activities, and to participate in them, he will forego the opportunity of fraternizing, which Dr. Rhinehart shows is of such vast importance to him in improving his practice and in keeping a level-headed attitude toward his work.

Quoting Dr. Rhinehart: "County medical

societies are important organizations. They are the units upon which all other medical organizations in this country are erected. They are the component points of the district and State societies throughout the nation. Membership in them is a prerequisite for admission to all medical societies. They provide the most frequent contacts for physicians with each other. It is in them that the leadership in district, state and national organizations originate and has its early development." Dr. Rhinehart believes that physicians should not regard their medical society as merely a social assembly, although it is that too, in part, nor a community club, although it functions as such. Its greatest value, harking back to Dr. Osler's statement, is the opportunity of "friction," for clash of ideas, for discussing various methods of procedure, in the manner herein described.

Many readers of Dr. Rhinehart's address will recall how some able secretary has kept his county unit active and energetic. Wherever a county society can find such a man he should be drafted for service, aided and encouraged. However, a secretary should not be required to do every thing. When he has the assistance of a group of several leading physicians, if general enthusiasm is not possible, he can render still more important service in maintaining an active and helpful organization.

In closing his address Dr. Rhinehart's chief argument is that an active society in each county, with regular meetings and large attendance, will increase the efficiency of all its members.

Abstract

PRESENT-DAY TRENDS OF PRIVATE PRACTICE IN THE UNITED STATES

Morris Fishbein, Chicago (Journal A. M. A., June 11, 1932), calls attention to the fact that great progress in medical science has substituted for the family physician a complex system including hospitals, laboratories, technicians, dieticians, nurses and a greatly increased equipment and personnel. He believes that the family physician will always be the most economic and practically the most satisfactory physician for 90 per cent of human ailments. The remaining 10 per cent of human ailments require hospitalization and specialization. Modification of the curriculum or abbreviation will not lead to a greater number of general practitioners. The rewards of general practice must be made attractive in comparison. with the rewards of specialization. The general practitioner must become increasingly a practitioner of preventive medicine, and people must learn that preventive medicine is, like curative medicine, to be paid for, particularly because it is always worth more than it costs. Organized medical practice in the form of groups, university clinics, industrial medicine, insurance practice and contract practice may have definite fields in medical practice. For the good of the public and for the advancement of medical science, they should limit themselves to the fields for which they are fitted. People must learn to save for sickness as they now save for luxuries or in anticipation of death. If the people cannot be educated to saving for sickness, voluntary health insurance or even compulsory health insurance will probably come. The physician in private practice will not disappear. Under every compulsory health insurance system, and even in Soviet Russia, he persists because only a personal physician can function efficiently in a vast number of types and cases of disease. Until human bodies and minds are standardized—an antibiologic conception—individual mutual responsibilities between patient and physician must be maintained.

Personal and News Items

Dr. Paul H. Power of Pine Bluff has accepted an internship in the New York Skin and Cancer Hospital, New York, where he devotes his entire time to the study of skin and allied diseases.

Dr. and Mrs. S. C. Fulmer, Little Rock, attended the National Tuberculosis Convention held at Colorado Springs, Colorado.

Dr. A. C. Shipp, Little Rock, was elected permanent chairman of the Administration Committee of the Arkansas Division of the White House Conference on Child Health and Protection at their recent meeting.

Governor Parnell reappointed Dr. F. Walter Carruthers for a five-year term on the Arkansas Crippled Children's Commission.

A joint meeting of the Sebastian County Medical Society and the Pulaski County Medical Society was held in Little Rock, May 21. The program consisted of papers by Drs. Walter G. Eberle, James A. Foltz and M. E. Foster. On June 6, the Ouachita County Medical Society met with the Pulaski County Medical Society. The program was as follows: Vitamins vs. Sugar, by Dr. S. C. Early; The Relation Between the Small Town Doctor and the City Doctor by Dr. J. B. Jameson.

A Tri-County Clinical Society has been organized with the counties of Hempstead, Nevada and Clark. Dr. C. K. Townsend of Arkadelphia was elected president; Dr. S. J. Hesterly of Prescott, Dr. H. A. Ross of Arkadelphia, and Dr. L. M. Lile of Hope, vice-presidents; Dr. A. S. Buchanan of Prescott, secretary and treasurer. Meetings will be held the last Thursday of each month, alternating in the three counties.

Doctors of medicine degrees were conferred upon forty-six members of the senior class of the University of Arkansas, School of Medicine, at graduation exercises held at the Little Rock High School auditorium. Dr. Frank Vinsonhaler, dean of the School of Medicine introduced Dr. Edward H. Cary of Dallas, Texas, president of the American Medical Association, who delivered the graduating address. He spoke on "The Development of Natural Sciences," tracing the development of science to the present.

Dr. Frank Vinsonhaler, dean of the School of Medicine, University of Arkansas, gave a reception at his home Tuesday afternoon, May 31, in honor of Dr. Edward H. Cary of Dallas, Texas. Members of the school faculty and the Pulaski County Medical Society were invited to attend the reception.

FOR SALE—Bausch and Lomb Microscope, Super-Diathermy, unused electric incubator, two sterilizers, MacKensie Ink Polygraph, other instruments and equipment. For particulars address, Mrs. C. T. Drennen, Hot Springs, Ark.

Dr. S. C. Grant of Mulberry gave a dinner at his home on Monday night, May 30, honoring Dr. F. Walter Carruthers of Little Rock.

Those present were Drs. Charles Holt, S. J. Wolfermann, F. H. Kroek, and Joe Kirkland of Fort Smith; Dr. M. S. Dibrell of Van Buren; Dr. Earle H. Hunt of Clarksville; Dr. O. J. Kirksey of Mulberry and Drs. S. F. Hoge and T. D. Brown of Little Rock.

A general round-table discussion on medical and surgical subjects was entered into and a most enjoyable time was had.

Drs. G. C. Webb, Robert Hood, W. P. Searlett and Louis Smith of Russellville and Roy I. Millard of Dardanelle, recently, spent a week at the Mayo Clinic.

Dr. and Mrs. F. D. Smith of Blytheville announce the engagement of their daughter, Juanita, to Kent Whitten Goodman of Memphis.

Auxiliary Notes

At the recent meeting of the Auxiliary to the American Medical Association held in New Orleans, Mrs. Wm. R. Brooksher, Jr., of Fort Smith was elected second vice-president. Mrs. Chas. E. Oates was appointed to act as parliamentarian, on account of the absence of the parliamentarian. Mrs. B. A. Rhinehart won the Cup in the Woman's Golf Tournament.

Mrs. Chas. E. Oates, President of the Auxiliary to the Southern Medical Association, has returned from visiting annual auxiliary meetings in Tennessee, Mississippi, Texas, Louisiana and Oklahoma, and the meeting of the American Medical Association in New Orleans.

The Woman's Auxiliary to the Bowie-Miller Counties Medical Societies was entertained at a delightful luncheon meeting, May 27, at the home of Mrs. Phillips of Ashdown, President of the Woman's Auxiliary to the Arkansas Medical Society. Co-hostesses with Mrs. Phillips were: Mrs. William Hibbitts, Mrs. H. E. Longino, Mrs. W. E. Wommack, Mrs. J. R. Dale and Mrs. Roy Basket.

Reports were given from the state meeting, held in Little Rock; the Texas state convention at Waco, and the meeting of the Auxiliary to the American Medical Association held at New Orleans.

New officers were installed. Mrs. L. J. Kosminsky made a farewell talk, turning the gavel over to the new president, Mrs. H. E. Murry.

DIPHTHERIA IMMUNIZATION IN PULASKI COUNTY

Through the efforts of Dr. C. McA. Wassell, Director, Pulaski County Health Unit, an effort is being made during the month of June to have every child immunized against diphtheria. Newspapers have come to his assistance as well as the radio, and publicity through the churches.

The following circular has reached every home in the county:

ATTENTION PARENTS:

The dreadful disease of Smallpox has been obliterated almost entirely by compulsory vaccination. Cases of Smallpox are rare, and deaths from the disease are now negligible.

All medical authorities agree that Diphtheria, another dreadful scourge can be eliminated by immunization. If all children from one to twelve years of age, the most susceptible of ages for Diphtheria, were immunized, cases of Diphtheria would be almost unknown in a few years.

The three Boards of Education of the County, the Little Rock Board, the North Little Rock Board, and the County Board; and the Presidents of the three Councils of P.-T.-A.'s, cooperating with the Pulaski County Medical Society, appeal to all parents who have children from one to twelve years of age, to have them immunized against diphtheria now, this summer. The recent school census shows that there are 13,000 children in Little Rock alone between the ages of one and twelve years.

Will parents wait for an outbreak of this disease to compel them to safeguard the health and lives of their children, a sacred obligation, responsibility, and duty? This is a challenge. It is hoped and believed that it will not go unanswered, especially by the 10,000 members of the P.-T.-A.'s in Pulaski County.

To call this more forcefully to the attention of parents, the Mayors of Little Rock and North Little Rock, and the County Judge, are proclaiming the month of June as "Diphtheria Immunization Month." And, in order that the services of the doctors may be available to all families, a maximum charge during this month, of only $5.00 for each complete immunization has been agreed upon.

Call or see your family physician and arrange to have this immunization done during the month of June.

If you fail to take out this insurance for your child, and he should catch Diphtheria, you could hardly forgive yourself.

Yours for happy and healthy children.

D. T. HENDERSON,
County Superintendent.

W. E. PHIPPS,
North Little Rock Superintendent.

R. C. HALL,
Little Rock Superintendent.

County Societies

MISSISSIPPI COUNTY

(Reported by F. D. Smith, Sec.)

The Mississippi County Medical Society met in Wilson, Tuesday, June 7, 1932.

Those present were: N. R. Hosey and J. H. Campbell of Joiner; C. M. Harwell, Osceola; F. L. Husbands, C. E. Wilson, J. A. Saliba, I. R Johnson, P. L. Tipton, A. M. Washburn and F. D. Smith, Blytheville; Oscar Barksdale and N. B. Ellis, Wilson. Visitors were: Drs. E. R. Barrett, Jonesboro; J. A. Crisler, Jr., W. L. Simpson, Lyle Motley, J. W. Bodley, and R. A. Hennessey, Memphis, Tenn., and T. G. Gentry, U. S. Medical Corps.

"Differential Diagnosis of the Acute Abdomen," by J. A. Crisler, Jr., and "The Talking Heart," by Lyle Motley, constituted the scientific program.

A resolution was adopted discontinuing the meetings until the first Tuesday in September.

After adjournment, refreshments were served by the Wilson members.

YELL-POPE COUNTY

(Reported by Roy I. Millard)

The Yell-Pope County Medical Society met in regular session in the dining room of St. Mary's hospital in Russellville, at 7:30 p. m., May 19. Members present were: Teeter, W. A. Montgomery, Cowan, Mason, Scarlett, L. M. Smith, Hood, J. M. Campbell, Griffin, John Grace, Millard, Stanford, Burnett, R. L. Smith, Gardner, Jean, Webb, Cale, Tate, Gillum, H. L. Montgomery, and Tom Montgomery. Visitors: J. D. Riley of Booneville; H. E. Mobley and C. E. Ethridge of Morrilton; John Smith of Paris, and J. J. Faust of Decatur, Illinois.

The hostess for dinner was Miss Ellen Phillips, Superintendent of St. Mary's hospital.

Dr. Riley, Superintendent, Arkansas Tuberculosis Sanitorium, read a carefully prepared and very instructive paper on "The Diagnosis of Early Tuberculosis."

Dr. Walter Cale invited the society to meet in Atkins next time. A motion was carried to accept the invitation.

Dr. R. L. Smith read a resolution endorsing Judge A. B. Priddy for Governor. The resolution was unanimously adopted by the society.

The next meeting will be held in Atkins, June 9.

Book Reviews

Dermatology and Syphilology for Nurses. Including Social Hygiene. By John H. Stokes, M. D., Duhring Professor of Dermatology and Syphilology. The School of Medicine, and Professor in the Graduate School of Medicine, University of Pennsylvania. 69 Illustrations. Published by W. B. Saunders Company, Philadelphia. Cloth, $2.50 net.

This book is arranged in four parts. The first deals with a descriptive summary of diseases of the skin; Part two deals with the treatment, particularly the technic of cleansing and wet dressings, the application of lotions and ointments. A chapter is given to diet and emphasizes the praeticalities of nursing technic and co-operation. Part three and four deals with venereal diseases and the principles of social hygiene. It is a very practical book pertaining to nursing problems from a renown author and teacher.

Diseases of the Skin.—A Text-book for Practitioners and Students. By George Clinton Andrews, A. B., M. D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Consulting Dermatologist and Syphilologist to Tarrytown Hospital; to St. John's Hospital, Yonkers; to Grassland's Hospital; and to the Broad Street Hospital, New York City. 1,091 pages with 988 illustrations. Published by W. B. Saunders Company, Philadelphia. Cloth, $12.00 net.

This book gives the most recent developments and the tried and conservative principles of dermatology. It consist of over 1,000 pages, divided into thirty-six chapters.

Under eczema, the author includes a diet list which may be modified to suit the individual case. Also "Elimination Diets" for the treatment of Food Allergy.

Chapter XXIII, deseribes the effect of infection of the skin by the tubercle bacillus and the variations in different patients; the clinical course and treatment. Considering the book as a whole, it may be considered a "book of service" for all praetitioners and students of medicine.

PROCEEDINGS

OF THE

FIFTY-SEVENTH ANNUAL SESSION

OF THE

Arkansas Medical Society

Little Rock, April 5, 6, 7, 1932

HOUSE OF DELEGATES
First Meeting
Tuesday Morning, April 5th

The House of Delegates convened in the convention hall of the Marion Hotel and was called to order at 9:30 a. m. by the President, Dr. Rhinehart.

The Secretary: The attendance cards of the delegates show we have a quorum present and I move we accept these credentials as the roll call of the House for the first meeting. Carried.

The President: On the Credentials Committee I will appoint J. M. Lemons, G. L. Henderson and H. H. Niehuss.

The Credentials Committee made its report as follows:

We, the Committee on Credentials, report that we have examined the credentials of all the delegates who have so far registered and find that their papers are in good form and correct.

J. M. LEMONS
G. L. HENDERSON
H. H. NIEHUSS

On motion, the report was accepted and the committee discharged.

The President: I have the pleasure of presenting to you the fraternal delegates from the Mississippi State Medical Association and from the State Medical Association of Texas. We are happy to have with us Dr. Chas. W. Patterson of Rosedale, Miss.

Dr. Patterson: Mr. President and Delegates: It affords me great pleasure to be with you today for the purpose of presenting a message of greeting from the Mississippi State Medical Association. It is their wish that with this meeting you may sound the unknown potencies and the depths of the subconscious mind whereby a tree of new thought may spring forth bearing the fruit of a superior wisdom to serve you as food for your great mental appetite. Gentlemen, I hope in the future you will not shun us as in the past. I was over here as a fraternal delegate several years ago, I think when you met in Hot Springs, and for several years I have noticed Arkansas has been absent among the delegates from other States adjoining Mississippi in her annual meetings. Now, gentlemen, I hope that at our next meeting on April 12th at Jackson, some of you will be with us.

The President: We will hear from Dr. S. A. Collom of Texarkana, the fraternal delegate from Texas, and who is also a member of our society.

Dr. Collom: I feel it a great honor as fraternal delegate from the Texas Medical Association to extend to you greetings and best wishes for a successful meeting from the State Medical Association of Texas and especially from our President, Dr. John Q. McReynolds of Dallas; also the pleasure of extending to each and every member of the Arkansas society a hearty invitation to attend our medical meeting in Waco, May 4, 5, 6, 7. Come everyone of you to Texarkana, the Gate City, where the members of our Society will give you the key to the gate opening into the great State of Texas.

The President: It affords me great pleasure to present to you Mr. C. P. Lorenz, secretary of the Southern Medical Association, who has just arrived.

Mr. Lorenz: I didn't expect to be found out. I thought I would slip in and just enjoy your session this morning. I am not the talking side of the Southern Medical Association, but the working side. I am just your hired man. You don't pay me to talk. So, I will not talk, except to tell you how delighted I am to be here again. The last time I visited one of your meetings was in Little Rock some

years ago. I also bring you greetings from the President of the Southern Medical Association, L. J. Moorman of Oklahoma City. It was my pleasure to be with him yesterday in conference on matters pertaining to our meeting in November in Birmingham, and other things. He asked me to express his pleasure in having been invited to come here and his sincere regrets in not being able to attend this meeting. He asked me if the opportunity presented to convey to you his good wishes for a successful meeting and sincere appreciation for the invitation. It certainly is a great pleasure to be here this morning.

The President: On motion, duly seconded and carried, the minutes of the Fifty-Sixth Annual meeting as published in the July, 1931, issue of the Journal were approved as printed.

The President: At this time I will appoint two Reference Committees; one on the President's message and the officers' reports, and the second on the reports of the various committees. On the first Reference Committee, R. B. Robins of Camden, Chairman; M. L. Norwood of Lockesburg; W. M. Majors of Paragould; E. H. White of Little Rock and S. J. Wolfermann of Ft. Smith. On the Reference Committee on Committee Reports, H. Moulton, Ft. Smith, chairman; J. M. Proctor, Hot Springs; S. A. Drennen of Stuttgart; H. J. G. Koobs of Rogers, and Sam J. Allbright of Searcy. It is my understanding that these committees will consider questions that have been proposed or brought up in the President's and officers' messages and in the different committee reports and report back with suitable recommendations at the General Session of the Society, Thursday afternoon.

First Vice-President Kosminsky: It gives me great pleasure now to call upon the President for his address to the House of Delegates.

PRESIDENT'S ADDRESS BEFORE THE HOUSE OF DELEGATES, ARKANSAS MEDICAL SOCIETY

April 5, 1932

Gentlemen of the House of Delegates:

The Constitution provides that one section of the Arkansas Medical Society shall consist of delegates; it also provides for the House of Delegates, designates its composition, and makes it the legislative body of the Society. The by-laws provide for the election of delegates, one at least from each component county society, and fully outlines the duties imposed on the House of Delegates. May I be permitted to call your attention to some of these duties, adding such discussion of each as seems pertinent at this time?

"It shall . . . give diligent attention to and foster the scientific work and spirit of the Society . . . " Essentially a scientific body, it is proper that the first purpose of a medical organization should be the advancement of its members in professional ability and skill. Through the Committee on Scientific Program, this purpose has been fulfilled in past years, and for this meeting there has been provided a list of papers to be read in the scientific sessions that is unusually well-balanced and comprehensive. We are all indebted to this Committee for such an excellent program. Of nearly equal importance is the display arranged by the Committee on Scientific Exhibit. This year there are more exhibitors than ever before. Many valuable scientific lessons will be missed if this exhibit is not carefully studied.

"It shall consider and advise as to the material interests of the profession . . ." Material in this sense suggests interest pertaining to or affecting the physical well being of physicians and relating to their bodily wants, interests, and comforts. Perhaps, at this time, each of us would welcome expert consideration and advice about our personal material interests. Submerging individual problems in those of the whole medical profession, subjects involving our material well-being will be presented. Among these will be the report of the special committee of the Council appointed to investigate the activities of health officials and nurses in the various counties of the State. The report of this committee has been approved by the Council and published in the December number of the Journal. It will be reported to the House of Delegates at this session.

Also of importance will be the discussion of the paternalistic attitude of the United States Government in providing medical and hospital facilities for ex-soldiers with non-service disabilities. This will be brought up in the report of the Committee on Legislation to which this subject was referred by the Council. It is common knowledge among physicians that ex-soldiers may now be treated

for any condition whatsoever at a Veterans' Bureau or a government hospital without any consideration of the nature or origin of the condition or the ability to pay for medical services.

I believe that this body should take some action, at least to the extent of determining the procedure to be followed by the members of the Arkansas Medical Society in influencing public opinion and legislation on this subject. Possibly also suitable resolutions addressed to the Arkansas delegation in the Congress of the United States might be drafted setting forth the position of this organization on this topic.

"It shall consider and advise . . . the public in those important matters wherein it is dependent on the profession . . ." This is a duty of some magnitude, one, perhaps, in which an investigation of past activities will reveal a near failure. Broadly speaking, the public is dependent on the medical profession for all information about public and personal health and disease, as well as all phases of curative medicine. In physician to patient contacts and through public health agencies, there have been some accomplishments, but collectively and as a society, to my knowledge, this function has been neglected. In the past, almost all health and medical advice and information has emanated from patent medicine almanacs, advertising from commercial sources, the quack contingent of the medical profession, and in some ill-advised, half-truthful, sensational articles on medical subjects by lay writers appearing in increasing numbers in popular periodicals.

This is a time of rapid and easy communication; news, messages, advertisements, propaganda, sometimes even information and good advice are being disseminated by newspapers, circulars, bulletins, magazines, airmail, telegraph and telephone, radio, and by means of lectures and addresses. Long damped and dissuaded by the age-old restraints against all that smells of personal advertising, the voice of the medical profession is beginning to be feebly heard. This is largely a defense reaction; talked about so much and for so long, physicians have begun to do some of the talking. In instructing laymen on medical subjects, instead of advertising, a much nicer term, publicity, is being introduced.

Publicity of the proper kind will be beneficial and should be encouraged. It should be educational and not controversial in character; it should be supervised and controlled; it should be collective and not individual. In any community, medical publicity should be a function of the county medical society.

The Committee on Publicity will have in its report the basis for regulations controlling radio addresses, newspaper articles, etc., which it would be wise for you to consider, amend or change as you see fit, and adopt. By the removal of deterring restraints and doubts so that physicians may give suitable information to the public, the adoption of regulations controlling publicity will be a step in advance in advising "the public in those important matters wherein it is dependent on the profession" and enable the House of Delegates at least to begin the performance of this duty imposed on it by the by-laws of the Society.

"Hygeia" is one authoritative voice of the medical profession. It should have a wide distribution. Particularly should it be available to school children. Since children have a will to learn not common in adults, "Hygeia" in the schools will have a profound influence on popular medical beliefs and practices in years to come.

"It . . . shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse information relative thereto . . ." The House of Delegates has poorly performed this function. Except for the Basic Science Law, medical practice laws in this State are archaic. No State has so many licensing boards, nor are there many in which the existing laws have been so poorly enforced. Perhaps the necessity for changes or the enforcement of some of the present laws has passed, for at least two of the so-called schools of medicine are obsolescent, without institutions to produce graduates for licensure in this State.

The activities of the House of Delegates in this regard may now consist in protecting the Basic Science law and in prohibiting enactments liberalizing the practices of some of the cults. The development of political mindfulness among physicians would be a great aid in advancing these activities. Candidates are approachable and attentive before the primaries; after the elections and preceding the session, legislators may still be influenced, but once the General Assembly has convened,

they are not so easily impressed. The most effective legislative work can be done by the home-town doctor with his own representatives and senators.

While there has not been a regular session of the General Assembly, some very good work has been done by the Committee on Legislation. The efforts of the Committee's Chairman, Dr. L. V. Parmley, are particularly commendable. During this year his attention has been directed toward making physicians politics conscious. The report of his committee should be given close attention.

"It shall make careful inquiry into the condition of the profession of each county in the State . . ." As far as my experience in the House of Delegates goes, this duty has never been performed.

"It . . . shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist . . ." This is another neglected duty. I wish we had time to inquire into the condition of our component county medical societies. We might advantageously follow the plan of the Auxiliary and have a written report from the delegation of each. It would be of interest for us to hear the condition of each, the number of members, the number and kinds of meetings, the interest manifested in society affairs, particularly the attendance, the number of eligible non-members, and the reasons for these physicians not being members. Of interest to those societies not functioning or that are poorly functioning would be the reports of the active and interested groups. For the reason that there would have to be some activity so that a report could be sumitted, just the necessity for a report, I believe, would be a stimulus to county society affairs. The House of Delegates should give a great deal more attention to component societies, for they make the Arkansas Medical Society and weakness in the parts enfeebles the parent organization.

"It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality . . ." This has also largely been neglected, for, had this function been diligently performed since this by-law was first written, there ought to be more friendliness among physicians than there is now. To me this seems to be the most important obligation imposed by the by-laws upon the House of Delegates. Friendliness among physicians of the same locality benefits them both personally and professionally, makes their work easier, unites them in common purposes, enriches their lives with friendships, engenders a kindly feeling for physicians everywhere, makes good county medical societies; in fact, it is the basic foundation for all progress in the medical profession. I am glad to report that there has been a definite improvement in the regard of physicians for each other in recent years.

"It shall divide the state into Councilor Districts . . . and, when the best interests of the Society and profession will be promoted thereby, organize in each, a district medical society . . ." Five of the ten Councilor Districts had societies at the beginning of this year. It has been my pleasure and privilege to attend and participate in meetings of each of these five societies. These meetings have been the most instructive and the friendliest that I have attended, and, because for large numbers of physicians in the less populous counties of the state they constitute the only medical meetings of the year, I think they are the most important.

During the year, district societies have been organized in the Fourth and Eighth Districts. Efforts made to promote such organizations in two other districts have not yet been successful. I would strongly urge that such societies be organized in the remaining districts, the Fifth, Sixth and Seventh. To this end it might be advisable for the delegates from the counties in each of these districts to meet with their respective Councilors at some time during this session and discuss the organization of these societies. At the last meeting of the House of Delegates, may I be permitted to call on some representative from each of these districts for a report on the results of their deliberations?

In addition to the preceding specific duties mentioned in the by-laws, there are other subjects that might be presented at this time. As stated earlier, one of our chief concerns should be the status of the component county societies forming the Arkansas Medical Society. For example, the 1931 roster of members shows that 33 county societies have ten members or less. Possibly some of you, more than I, can appreciate the difficulties in making active organizations with such few members. For this reason, it has occurred to

me that some of these smaller societies, with adequate highways connecting the counties might advantageously be united. This would increase the membership and might stimulate interest in these medical organizations.

I have also been interested in the division of the State into new Councilor Districts. I have been unable to find just when the present division was made. Certainly it preceded by a number of years the present highway system of the state which is now the chief means of transportation within the Districts. Along with a study of the grouping of some of the smaller county societies, a study of the arrangement of the counties into districts might be undertaken to see if a more advantageous arrangement of the districts could be devised. A special or permanent committee on district and county medical societies to study and report to the House of Delegates at subsequent meetings might produce some good result.

I believe that the constitution and by-laws of the Society are inadequate. Proper constitutional authority for many activities of the Society are lacking. There are other instances in which the duties of the officers, the committees, the House of Delegates, and the Council are poorly defined and indefinite. Time will not permit me to discuss these more fully. I think a special committee should be appointed to draft amendments to these instruments, or, preferably, to prepare and submit an entirely new constitution and by-laws.

There has been agitation in some localities for a lowering of the State Society dues. The reduced membership caused by economic conditions, the loss of reserve funds in a bank failure, the increased expenses for visiting speakers at the annual meetings, the employment of a legal advisor which should be continued, the complimentary distribution of "Hygeia" and the loss of advertising revenues of the Journal would make this an unwise move. I would recommend that no change be made at this time.

I believe that there has been an improvement and an increased interest in medical society affairs during the last year. This has been due to the activities of the officers, the committees, and the members throughout the State. I should like to commend particularly the interest and the efforts of the man who has, for so long that the mind of man remembereth not to the contrary, served us as Secretary and Editor, Dr. Wm. R. Bathurst. I have found him to have a fund of information about medical affairs not equaled elsewhere and a most competent and willing official.

In concluding, I take this opportunity to thank you for the honor and pleasure it has given me to serve as your President for the last year.

Vice-President Kosminsky: This wonderful message of your President will be referred to the Reference Committee on President's address.

The President: We will now hear the reports of the standing committees. I have been informed that Dr. Hinkle, the chairman of the Committee on Arrangements, is held up at the hospital and will be in a little later. We will pass that report until he arrives.

SCIENTIFIC PROGRAM

R. J. Calcote, Chairman.

The Scientific Program Committee is composed of W. R. Brooksher, Jr., Wm. R. Bathurst, and myself as chairman. I want to take this opportunity to publicly thank the other members for the very excellent work and cooperation in the preparation of this program. The results of our efforts have already been placed in your hands. We know it isn't becoming of us to boast, but we believe this is an excellent program. Another committee will tell you the numerous entertainment features which have been arranged for your enjoyment and we hope you will enjoy them to the fullest extent, but let's not forget our scientific program, and remember that during every hour of the day excellent papers will be presented here for your enjoyment. It isn't necessary for me to remind you of our distinguished guests and ask you to give them a large and attentive audience and hope you will do the same for the members of our Society who have so generously contributed to this program. Let's remember that an attentive and appreciative audience stimulates the speaker and spurs him on to his best efforts. We hope also that you will freely discuss these papers, not in a passing sort of way, in merely rising on the floor and complimenting the speaker, but discuss them actively and energetically so as to get the most out of each subject and even where criticism or controversy is indicated we hope this may be done in a friendly way. I would like to suggest that every member of the Society give our program next year more serious thought. As soon as your Program Committee is appointed, if you have any suggestions to offer, write them in at once. Do not expect your committee to follow up every suggestion that you make, but let the committee have them so that they may at their discretion pick out the best and give you just exactly what you want and make the work of the committee in pleasing you more easy.

The President: This report will be referred to the Reference Committee on committee report.

SCIENTIFIC EXHIBIT

H. Moulton, Chairman

In making this report, there isn't very much to say; there's quite a bit to be seen. The exhibit is in the entrance way to this hall. A very important part of it is upstairs, an exhibit on syphilitic disease and an exhibit on heart disease. They are both very interesting and the exhibitors have taken a good deal of pains to bring them here. I hope you will see them. I think the scientific exhibit this year is a little fuller than we have had heretofore. Through the cooperation of the other members of the committee, especially those in Little Rock, we have been able to gather together quite a number of very interesting and valuable exhibits. I would like to say this in regard to the future of the scientific exhibit: Nearly every doctor has something in his office or laboratory that is of extreme interest in a scientific way, pathological specimens, anatomical specimens or perhaps some instrument of his own devising; or perhaps he has gathered some statistics in regard to the incidence of disease or the treatment of disease which if gotten up in the proper shape would be of extreme value in a scientific exhibit, and try to bear in mind in the future that if you have anything of that kind it will be very valuable. There is not anything of more value from an educational standpoint than a good scientific exhibit.

The President: We are all indebted to Dr. Moulton and his committee for their excellent scientific exhibit they have arranged. I urge each of you to find time during the meeting to inspect carefully all of this exhibit because many valuable scientific lessons may be learned; as far as scientific work is concerned, it is second only in importance to the scientific program.

REPORT OF THE LEGAL ADVISER

Hon. Peter A. Deisch, Helena

In legislative years your attorney makes a report of new legislation that has been enacted, and of proposed legislation that was deemed unfavorable to the people, which has been defeated. No new matters presenting themselves for review, and as the subject of soliciting has been discussed in various quarters, the Gantt law, which did so much for the public and for the profession, may profitably be discussed. After an intolerable situation had existed in this State for many years, this law was passed in 1903, being now Section 8278 of Crawford & Moses' Digest, and it has been entirely successful in preventing direct solicitation by means of agents or solicitors employed by individual practictioners.

In 1906 the Gantt Act first reached the Supreme Court, in which case the defendant contended that the law was unconstitutional and void as being an unwarranted interference with his constitutional rights; that the practice of medicine was an ordinary, lawful and useful occupation; that it was best to let the foolish man suffer; that for the pain, he must bear it as he can; for the experience he must treasure it up, and act more rationally in the future; and that to others as well as to himself will his case be a warning; and that by multiplication of such warnings there cannot fail to be generated a caution corresponding to the danger to be shunned.

As we know, however, the court did not concur in that conclusion, but declared that under its police power the State has the right to prohibit things that are hurtful to the comfort, safety and welfare of society, and that under the exercise of this power the State may regulate the practice of medicine and surgery.

The court said (in Thompson v VanLear, 77 Ark. 506) "that the temptations to which this would subject the physician, and the danger to which it would expose the patient, show a wide distinction between the case of a merchant who drums for custom by hired agents, and that of a physician who seeks patronage in the same way. The Legislature has forbidden the physician to do so, and there are, in our opinion, sound reasons upon which to base the distinction. The law thus undertakes to protect the physician from the temptation, and the patients from the danger to which they would be exposed by such a practice."

Attempts have been made in various parts of our State to evade this law by the organization of corporations, which contracted with physicians to attend and treat its patients in hospitals provided by the corporation. The corporation then employed agents to solicit patients, who, when thus secured, were issued certificates entitling them to attention by the physicians and surgeons in the employ of the corporation.

This state of facts has never reached our Supreme Court, but the Circuit Court of Sebastian County, under the facts above stated, held that a corporation has no right to practice a profession; that corporations were organized only for business purposes, and that the practicing of a profession was not a lawful business purpose. In that case the corporation's charter was revoked, and it did not see fit to appeal the case to the Supreme Court.

As to whether a partnership under similar circumstances, would be prohibited from employing physicians, and the partnership itself, through agents, solicit patients, has never been determined by any of our courts, although your society has been furnished with an opinion by your attorney, to the effect that such acts would be enjoined by a court of chancery.

In other words, in the present state of the law, laymen may employ agents to solicit patients, and then in turn, they may employ physicians and surgeons to treat the patients whom they have secured by solicitation. This might be prohibited by the courts if it was brought to their attention, but that has never been done.

Some concern has been manifested by some of your members because of an unduly large number of licenses of Eclectics being recorded in various counties. Sec. 8244 of Crawford & Moses' Digest provides that every person receiving a certificate to practice medicine, shall have such certificate recorded in the office of the county clerk where he is practicing or proposes to practice, and when he moves to another county to practice, he shall file for record a certified copy thereof.

There is nothing in the law to prevent anyone holding a certificate from having it recorded in any county of this State "where he proposes to practice." There is under present law no power to prevent this from being done, when any person

is in possession of such a certificate. It might be well to amend the law by providing for an affidavit to the effect, that one presenting such a certificate to the county clerk "intends to practice in that county, and stating where his residence will be," and perhaps including other safeguards. The standing committee on legislation might conduct hearings in order to determine whether or not such an amendment to the present law is desirable.

It is difficult to determine what advantage such registration of license is to the one who holds the certificate, unless he actually intends to practice in that county, as under present law there is nothing to prevent him from keeping or holding his certificate, once it has been issued to him, even for many years, and then having it recorded where he proposes to operate. The question of annual registration of physicians has been for many years considered by this Society, and after careful thought it has been determined that such annual or biennial registration is not advisable. Under such a law, when one failed to register annually, or biennially, as the case might be, his certificate and right to practice would be forfeited until he had again established his right to a license. While this would be an excellent manner to provide a directory of all physicians in the State, it is thought that its disadvantages would outweigh its advantages.

The basic science law provides that all certificates issued by that board shall be filed with the secretary of State, and it is probable that all certificates issued by the various medical examining boards should also be filed there. There is now no way of determining what certificates are outstanding, or have been issued by the various examining boards, except by a reference to the records kept by the secretaries of those boards. In most cases this is inconvenient in the extreme.

To aid you gentlemen in an untrammeled effort, as far as may be possible, to pursue the ultimate, complete control over the diseases that afflict the human body is the purpose of your committee on medical legislation. If I may venture an opinion in this field, I should say that one of the contingencies, which is fully as uncertain as that of the future progress of medicine to its complete domination over disease, lies in the ability of men to control themselves and perpetuate a sound civilization. To assure this is the high and heavy responsibility of this committee. And so I feel that the future of medicine is, in a very real sense, in the hands of your committee on legislation.

Respectfully submitted,
PETER A. DEISCH,
General Counsel Ark. Med. So.

MEDICAL LEGISLATION

L. V. Parmley, Chairman

Mr. President, and Members of the House of Delegates of the Arkansas Medical Society:

The Committee on Medical Legislation met, at the call of the Chairman, at breakfast this morning to consider this report and certain recommendations contained herein. It was the only meeting called during the past fiscal year.

The Committee, as a whole, has had very little to do during the past year, since it was an "off year" in politics. Our duties seem to have been more along the lines of constructive preparation than of actual Legislation.

Your Chairman has spoken to the members of six districts, including the Tri-County meeting at Camden, along the lines suggested to us by the National Legislative Committee, especially concerning our participation in politics. These talks were enthusiastically received and the Committee wishes to express its appreciation to the Society as a whole for the reception given its proposals at those times.

Your Chairman has been more or less constantly in touch with the President and Secretary. Also he has been in correspondence with the Chairman of other State Legislative Committees as well as the Chairman of the Legislative Committee of the American Medical Association. Our problems are about the same as those confronting all other medical societies apparently, but all of them seem to be combatting these problems somewhat more vigorously than we are. In this connection I desire to mention especially the Legislative Committee of Illinois Medical Society, Dr. J. R. Neal, chairman, of Springfield.

Your Committee has been especially impressed with the so-called "Shoulder Plan" which the A. M. A. has asked us all to consider. Time will not permit us to discuss in detail the features of this plan, but we desire to state that it has been approved by the A. M. A. We earnestly recommend that the members of the Arkansas Medical Society study the plan and lend every effort to its support.

Realizing that embarrassing situations may come up in the next General Assembly, as occurred in the last regular Assembly, concerning public health measures, this Committee urges this House to request the State Board of Health to submit its Legislative program to the Council of this Society, or this Committee, to the end that harmony may prevail. This Committee is not unmindful of the help the State Board of Health can lend us in our endeavors, but, by the same token, it wishes to remind the State Board of Health that its business is of vital importance to the profession as a whole throughout the State.

This Committee also wishes to remind the members of this House that the bonds, through which the School of Medicine hoped to obtain sufficient funds to erect a new building, have not been offered for sale and that there is no immediate prospect of their being offered for sale. Investigation convinces us that approximately 75 per cent of the membership of the Arkansas Medical Society are graduates of the University of Arkansas, School of Medicine. Certainly no doctor desires to be a graduate of a defunct Medical School. For that reason this Committee endorses the efforts of the Medical School authorities to obtain a greater sum for maintenance, as well as funds for a new building.

This Committee believes that the three Medical elements, namely, the Society, the State Board of Health and the Medical School, should work together legislatively, to the end that our friends in the General Assemby will not be working at cross-purposes.

A number of prominent members of the General Assembly, now in special session, have voluntarily spoken to your Chairman regarding possible proposed legislation to come up in the 1933 regular Assembly indicating that they will follow our advice in those matters because their home doctors have advised them to do so. Your Committee wishes to thank those doctors for this cooperation. It makes us feel that our efforts in laying a foundation for the next regular session have not been wasted.

Several communications have been received by the Chairman regarding the introduction of cer-

tain legislation in the next regular Assembly. Among them is one limiting the sale of certain drugs classed as hypnotics. Another suggestion is to put teeth in the law regarding the practice of medicine without a license with special reference to "counter prescribing" by druggists and others. These will be presented to the Council for its consideration.

This Committee, whose duties end with this report, wishes to offer its successor the letters herewith attached for use during the coming campaign. We believe these letters will save a great deal of work later on.

Also we wish to remind this House that money for stationery, postage, printing, etc., will be required for the coming legislative fight—not a great deal, but some. Your present Chairman will gladly appear before the Council for discussion of this subject.

In conclusion we desire to thank our President for giving us the opportunity to serve the Arkansas Medical Society during the past year in the capacity of the Committee on Medical Legislation.

Respectfully submitted,
L. V. PARMLEY, Chairman,

DEAR DOCTOR:

Enclosed please find a copy of a letter going forward to all candidates of record for the next General Assembly.

The Council of the Society, through its Legislative Committee, will send out at frequent intervals during the next legislative session a bulletin which is mailed gratis to all interested members, thus keeping over a thousand physicians in the State in touch with such laws that have either a remote or a direct bearing on the practice of medicine.

It is most important for you to know the character and type of men of your district who are seeking the endorsement of the voters to represent them in the next Arkansas State Legislature. It is indeed fitting and proper that the medical profession take a very active part, not only in the proposed bills introduced in the Legislature regarding the public health, but also in the type and capabilities of those who seek the very important duty of enacting such laws.

It is well to scan the list of candidates in your district, and the Chairman of the Legislative Committee, at Little Rock, can furnish the records regarding the members seeking re-election as to their attitude in previous sessions regarding health measures.

If the interest of physicians is not aroused in this day of political changes regulatory laws inimical to the medical profession are sure to appear. The officers of the Arkansas Medical Society through the very able efforts of the Editor of its Journal, have fought valiantly for years to place Arkansas in a most enviable position regarding medical matters.

It is imperative, therefore, that you take an individual interest in the primaries and the election which will decide the personnel of the next General Assembly, and such interest on your part will evidence the endorsement of your officers and their Legislative program,

Yours very truly,
L. V. PARMLEY, M. D.
Chairman, Legislative Committee.

TO THE CANDIDATE ADDRESSED:

As a candidate for the Arkansas General Assembly you will no doubt be interviewed by many groups interested in legislation to be opposed or favored.

At each session of the Legislature there are many bills offered which relate to the public health.

The Arkansas Medical Society, composed of hundreds of physicians throughout the State, through its officers, makes an effort each session to inform the legislators regarding the merits or necessity of any bill which is of general interest to the people of Arkansas regarding their health.

The Arkansas Medical Society does not resort to having large lobbies come to Little Rock to favor or oppose any given measure. Neither does that Society resort to the so-called grateful patient endorsement, for the Society is opposed to having thousands of letters from such sources sent into Little Rock to encumber the arduous duties of the legislator. The 1933 session of the Arkansas Legislature will have many controversial subjects to deal with, and a number of groups are extremely active at this time trying to gain favors or pre-election promises.

The Anti-Vivisectionists, an organization ably financed and largely sponsored by a group of excellent ladies are attempting through false propaganda to tear down the very foundation upon which scientific medicine has been builded. They will attempt to put the love for a dog far in advance of the life of a child. Animal experimentation, as conducted by reputable colleges and laboratories, is not inhuman and there is none of the bestial brutality as the proponents for such a bill would have you believe.

The purpose of this letter, therefore, is merely to ask that you keep your mind open and not to make promises without thoroughly investigating the good or evil of such a measure. We would suggest that you do not promise your Chiropractors, Osteopaths, Natropaths, Sanatologists, or any of the other many groups who seek support to Medical Men, Anti-Vivisectionists, special privilege legislation.

There is an increasing effort upon the part of a number of well organized groups who, desiring lucrative positions and increased political power, have abandoned efforts to concentrate their effort at Washington and obtain a national law, and then to crowd that law down the throats of the State Legislators for concurrence, thus robbing the individual State of its own sovereign rights. This class of legislation has always been opposed, and always will be opposed, by the Arkansas Medical Society.

Other federal bureaus and commissions are being considered in Washington which would supersede State laws having a bearing on the practice of medicine. All such commissions and bureaus which would have supervisory power over the practice of medicine are in our opinion wrong, and such regulatory laws should be enacted by the State of Arkansas without federal aid or hindrance.

The Arkansas Medical Society will appreciate the opportunity to cooperate with the Legislature in an effort to keep Arkansas as one of the outstanding States of the Union regarding adequate laws to protect the health of the citizenry of the State.

Yours very truly,
L. V. PARMLEY, M. D.
Chairman, Legislative Committee.

The President: As I said in my annual message, we are particularly indebted for the activities of the legislative committee during this past year in the attempt to make the doctors "politics conscious." Do not forget those two words. When you go back home, before next summer, when we will have a State-wide primary, talk to the candidates for office. They will talk to you and they are easily converted after your talk. This committee report will be referred to the Reference Committee.

NECROLOGY

E. E. Barlow, Chairman

I have no special report. I want to call your attention to the long list of deceased members during the past year and state that my committee will conduct memorial services in the morning from 8:30 until 9:30 and hope every member will be present, the services to be held in this hall.

PUBLICITY

C. E. Dungan, Chairman

The part of the resolution relating to radio and press endorsed.

The part relating to tonsil clinics belongs to the Committee on Health and Public Instruction.

RESOLUTION

The Educational and Publicity Committee of the Arkansas Medical Society, heretofore appointed by the President for the purpose of drafting resolutions setting forth suggested principles regulating the type and source of medical information which may be given to the public by radio and the public press, after investigation, respectfully report as follows:

1.

The public is in need of further and more wholesome information on medical topics; that members of the Arkansas Medical Society in good standing should be encouraged to give radio talks and write articles to the public press on hygiene and preventive medicine, but should avoid controversial points in methods of diagnosis and treatments.

2.

In certain sections of the country radio and press privileges are being abused by doctors themselves and others posing as doctors. That they are using these methods as means to draw patients to them; that it is known as a fact that poor people have made long and expensive trips to these advertisers with the hope of finding a cure for conditions which had been determined incurable, and while we would not stultify laudable ambition, subdue original thought and free speech, nor do we believe that honor should be taken from him to whom honor is due, yet we do believe much harm may come both to the public and to the medical profession by letting the radio and the press be used as a means of obtaining patients, whether intentionally or unintentionally. Therefore, we doubt the wisdom of using the author's name in medical radio addresses and articles to the public press. But when it is thought that information on medical topics given the public may be more favorably received if the author is known to them, then the public should be advised that the message is not for advertising purposes, but is for their education, and if they desire further information on the subject they must consult their family physician. Therefore, we believe that it is the duty of this Society to formulate some sort of censorship or advisory method which will safeguard the radio and press privileges and which will protect the public against false advertisements and incorrect advices as well as to preserve the dignity of the medical profession and maintain public confidence.

3.

There seems to be a growing tendency by some doctors to encourage and even solicit certain groups of people to contract with them for a monthly or yearly stipend for their medical and surgical care. It is not feasible to determine how grouping patients together could conserve time and effort, make the cost to the individual patient less, and at the same time render him as efficient service. Every patient accepted by a doctor deserves undivided attention and regardless of the fee he pays his safety should have first consideration. Deliberation in examination, diagnosis and treatment has long been regarded the safest and best method. Soliciting or contracting to do group practice for less cost to the individual is believed to be contrary to the standards of medical ethics and against public policy; That it smacks of soliciting, advertising and quackery and is dangerous both to the public and to the medical profession; That if such practice is permitted, it is destined to grow until every person in the country will be under contract with some doctor or group of doctors: that such a situation would be stultifying to the ambition of young men in the study of medicine, facing the situation upon graduation from Medical School of becoming hirelings of some older and established doctor, and that such a condition would have a destructive influence on medical education, Therefore we condemn it as unsound and unprofessional.

4.

It is common knowledge that there has grown up in this State a rather general practice among certain public health workers of holding public clinics, not only for diagnosis but for treatment; That unclean schoolhouses and courthouses and other crudely improvised places are being used for operating rooms in which to do throat surgery; That large groups of children are brought into these places to have their tonsils removed and that dozens of them are rapidly operated upon for removal of tonsils and adenoids without any previous preparation or knowledge of their physical fitness; that parents are solicited to make contributions or sort of free will offerings to the operating surgeon, the sum total of which has been known to amount to as much as five hundred dollars for a days work in the free clinic. Many of these patients are known to be well able to pay regular surgical fees; That this method of doing surgery is inhuman and is in total disregard of all the teachings of aseptic, conservative and safe surgery; That such practice is undignifying to the profession and nothing short of billboard advertising; That it gives a sort of peddling, commercial aspect to the art of surgery and cheapens and minimizes in the minds of the laity. Good and careful surgical technique, and that this Society condemns such practice as unethical and unprofessional.

5.

We believe there is no greater and more important work than that done by public health workers and our Boards of Health, and we desire to encourage them and the medical profession as a whole in free inspection of school children, in teaching hygiene and in caring for the indigent sick, indisseminating knowledge preventive measures used against disease. We strongly advocate a medical educational program which will give to the public wholesome, assimilable and uncontroversial information for we believe that this will be a means of giving the public a better understanding of and instil in them greater confidence in the medical profession and less faith in patent medicine vendors, charlatans and quacks.

Therefore, be it resolved that the Arkansas Medical Society shall adopt such measures as may be deemed necessary to cause its members to conform to the principles herein above set forth. And this committee herein reporting be continued, or some other committee appointed by the President, with instructions to draft definite by-laws covering the points and recommendations in the above resolution set forth and that said by-laws be submitted to this society for adoption at a later date.

Therefore be it Resolved that the Arkansas Medical Society adopt the following rules and regulations:

1. That members of this society be permitted and encouraged to give radio talks and give medical information to the public through the public press upon subjects of hygiene, preventive measures to be used against contagious and suggestive signs of incipient illnesses, but all information given the public through these mediums must be authentic and subjects under controversy must be avoided; That no member of this Society shall be permitted to use his name in giving radio talks or in writing to the public press, but shall introduce or sign his messages under the name of his local medical organization.

That the soliciting of contracts or engaging in contracting with individuals or groups of people to do medical or surgical practice for a certain stipend a year or a divisional part of a year be condemned and prohibited and excepting as an employee of an institution or corporation which provides and owns a hospital or hospitals solely for the care of their employees; that a member of this society found guilty of doing such contract practice shall be expelled from the society and refused professional recognition by its members.

2. That the practice of doing throat or other surgery in other than properly prepared operating rooms where surgical asepsis can be carried out or that children be operated upon for the removal of tonsils individually or in groups without knowledge of their physical fitness be condemned as unsafe and unprofessional surgery, and that members of this society found guilty of engaging in such practice be expelled from this society and refused professional recognition.

3. That public health nurses be forbidden to give vaccines or give toxin-antitoxin excepting under the direction of a regular licensed doctor; and that county health officers shall not be permitted to promiscously vaccinate school children but shall call in the local doctors when giving vaccinations or toxin-antitoxin so that those who are able to pay may be selected out and sent to their family physician for such service and only those known to be unable to pay be vaccinated by the public health doctor or his nurse under his direction.

The President: This report will be referred to the Reference Committee on committee reports.

I see the chairman of the Committee on Arrangements. We will listen to Dr. Hinkle at this time.

ARRANGEMENTS

S. B. Hinkle, Chairman

I would like to turn this report into an address of welcome, but Dr. Rhinehart said I couldn't do that. We want to tell you that we have done all we can or about all we can to arrange for your comfort and entertainment while you are in Little Rock. We have been looking forward to this meeting for a year, but we have made nothing elaborate in the way of entertainment. We have tried to give you the best talent there is in Arkansas—or some of the best—and America for your scientific program. The several units of the Auxiliary have arranged some beautiful entertainment for your wives. In this hall tonight the President's reception, under the general care of both committees, a dance and style show and things like that, but a general, happy, get-together time. We have arranged for a banquet for all medical men tomorrow night. The program is under the auspices of the Alumni Association of the Arkansas University but arrangements will be made for the getting together of graduates of all medical schools.

Arrangements are being made for all who want to play golf. It isn't necessary for you to enter into the Dewell Gann, Jr., contest for the cup. If you want to play golf, arrangements will be made for you. You only have to make your wishes known. If you want to enter the contest, register today with your handicap and turn in your score by Thursday at one o'clock when the cup will be awarded.

CANCER CONTROL

Dewell Gann, Jr., Chairman

Mr. President and Gentlemen of the House of Delegates:

Your Committee on Cancer Control respectfully submits the following report:

Whatever we may think of cancer we must of necessity recognize it as a formidable foe and deal with it accordingly. It is now ranking high in the column of the four leading causes of death and within this year we may expect it to be direct cause of at least 100,000 deaths in the registration area of the United States and the death rate is increasing at the rate of two and one-half per cent per annum as a national average. Approximately fifty per cent of these deaths will be the result of cancer of the stomach, bowel and rectum, fifteen per cent of the uterus, nine per cent of the breast, four per cent of the skin and three per cent of the lip, mouth and tongue.

Cancer remains a clinical entity, the cause of which has not been proven. The hereditary problem is questionable and it has been transmitted from one species to another in the lower animals only. It is insidious in its onset, painless in its incipiency, local in its early stages, when curable.

There is no one satisfactory method of treatment. Surgery, radium and x-ray are the methods of choice. While in Germany last year one

of us learned something of the acidosis treatment of inoperable cancer. This treatment is now being used in the United States. It appears well worth while and we can conscientiously commend it to your attention.

Since its cure lies in its early recognition we recommend that this committee continue its activities along the following lines:

1. Medical Approach: Continue to stimulate interest in cancer programs among physicians through:
   a. Distributing abstracts and reprints.
   b. Publishing articles in medical journals.
   c. Arranging programs for State and component societies.
   d. Arranging symposia and clinics.
   e. Emphasizing cancer in medical schools.
   f. Inserting questions on cancer in medical examinations.
   g. Showing cancer moving pictures.
   h. Assembling and loaning good lantern slide collections.
2. Continue to encourage the hospitals in their effort to meet the requirements of the American College of Surgeons in their effort to establish cancer clinics in general hospitals.
   a. Encourage the writing of articles on cancer by the Staff members representing the cancer group of the hospital.
   b. Encourage short post-graduate courses in the diagnosis of cancer.
   c. Carry the message to nurses at their State and component society meetings, giving lectures, distributing literature, etc.
3. Lay Approach: Continue lectures to the public by properly qualified speakers, the distribution of literature, radio talks, exhibitions at State and county fairs, etc.
4. Continue to urge and assit the State Health Officer and his Staff, Home Demonstration and County Agents to disseminate knowledge concerning cancer.
5. And finally, continue its cooperation with the State Committee of the American Society for the Control of Cancer, visit its exhibit in the Scientific exhibit in the main lobby, read its literature and continue the appropriation for the maintainance of this committee amounting to one hundred dollars annually.

Dewell Gann, Jr., Little Rock, Chr.
D. W. Goldstein, Fort Smith
A. G. Harrison, Searcy
E. F. Ellis, Fayetteville
J. S. Wilson, Monticello
Committee on Cancer Control.

The President: Inasmuch as this committee report suggests an appropriation, it will be referred to the Counell.

INFANT WELFARE

Don Smith, Chairman
(Not Present.)

HOSPITALS

M. E. McCaskill, Chairman

Mr. President and Members of the House of Delegates:

Last year this committee gave you some statistics which had been compiled by the American Medical Association regarding the hospital situation. Because of the early date of this year's meeting we have not been able to get this year's report for comparison, therefore this report is to be very brief.

The hospitals have suffered perhaps more than any others because of the general economic condition in which we find ourselves, but it is not our intention to discuss unpleasant things, especially those for which we have no remedy.

Each member of this body should have well in mind the "Essentials of a Registered Hospital" as prepared by the Council on Medical Education and Hospitals of the American Medical Association.

A hospital should have the following qualifications:

(1) A staff made up of one or more properly qualified physicians who shall be graduates of reputable medical schools; and all physicians treating patients in the hospital must be so qualified.

(2) An able management which, depending on the size of the hospital may be in the hands of a competent physician, an able superintendent, or board of trustees.

(3) A competent physician-pathologist, either on the staff or easily accessible, who should examine and keep a careful record of tissues removed at all operations conducted in the hospital.

(4) Careful histories and records of all patients admitted to the hospital with which should be filed reports of any laboratory analysis, roentgen-ray findings or pathologic reports of any tissues examined.

(5) One or more competent nurses depending on the average number of its patients.

(6) Regular staff conferences, at least monthly and preferably weekly, in all hospitals having staffs of three or more physicians. At these staff conferences, complicated cases in the hospital should be considered, as well as all deaths occurring in the hospital during the period intervening between meetings. If necropsies have been held on any of these patients, these especially should be given discussion in which antemortem and postmortem signs, symptoms and observations should be compared.

(7) Hospitals are institutions which should not be conducted for profit, but for the purpose of securing better medical service for the community and they should always be conducted in accordance with the code of ethics of the American Medical Association.

M. E. McCASKILL, Chairman
A. S. BUCHANAN
S. J. WOLFERMANN
R. B. ROBINS
R. H. HUNTINGTON

HEALTH AND PUBLIC INSTRUCTION

C. W. Garrison, Chairman

Mr. President, and Members of the House of Delegates of the Arkansas Medical Society:
Sirs:

As a preliminary remark, I want to admit that I was derelict in getting in touch with members of this Committee. Last Thursday, I mailed a copy of this report to the other members and asked for an early return with comments and criticisms and expected to incorporate them in this report, but not until this morning did I receive them. I will therefore read the report and then the comments by the members of this Committee.

Your committee on Health and Public Instruction herewith submits the following report:

Much has happened during the past year to be of interest to you and to the State Society. Pursuant to a resolution adopted at the meeting in

Texarkana last summer, your Council had several conferences with the State Health Officer and one meeting with the members of the State Board of Health regarding the policies and practices of the State Health Department.

It is presumed that the Council will make a report of its findings and submit a copy of a reply from the State Board of Health.

We should like to call your attention to the report of the Council in its reference to corrective clinics. No fault whatever was found with the policies laid down governing these clinics. There was not full accord with the immunization program, yet there was marked evidence to indicate that the Council did not wholly disapprove the policies established in regard to the immunization program.

In order that there may be a record in the Archives of the Society, it is desired here to state the policies as declared by the State Health Department.

Corrective Clinics

The early corrective clinics, usually tonsil and adenoid clinics, were not inspired nor organized by the health authorities nor by members of the medical profession. They came about more or less logically as the result of a desire of the interested mothers of the State to have the children suffering with correctable defects given medical and surgical attention. An investigation on the part of the State Health Officer revealed that in almost every instance where clinics were organized by lay individuals that unscrupulous and incompetent physicians were called in to do the surgical work.

There is no law to prevent such a procedure. It, therefore, was felt that the only proper and logical agency was the State Board of Health. The following definite instructions were issued years ago and have been restated in writing and verbally many times:

First, that under no circumstances should any member of the official health personnel begin the organization of a corrective clinic without first consulting the officials of the county society and then the clinic is to be held only with the approval and under the auspices of the county society. In the counties where there are no societies, the practicing physicians control.

Second, that under no circumstances should the health personnel select the specialist or operator, this being left entirely with the county society, or physicians interested.

Third, that the physical examinations made by the health personnel shall not be accompanied with a diagnosis, but referred to the physicians for further determination.

Fourth, that a notice be sent to the parents directing that they confer with their family physicians.

Fifth, that reasonable fees be charged in accordance with the family's ability to pay, the fee range being from five to twenty-five dollars. In all ordinary groups of fifteen to twenty-five or more, fifty to one hundred dollars or more are raised to pay for the material and expense of the operator.

Sixth, that it not be called a free clinic and the price each individual pays should be regarded as confidential.

Clinics operated in this manner have afforded surgical service to thousands of seriously affected children who otherwise could not have received this service. Many others able to pay and did, and who have benefited by this service, probably never would have received this attention.

The effect of these clinics has been to educate the parents to the necessity of having their children examined and corrections made when necessary, which has resulted in an increasing number going to the private physicians for examination and treatment.

Another additional item of importance is that of the physical or birthday examination for life extension. The medical director gives publicity to this project and offers to examine free anyone who may apply to him. Should high blood pressure, heart lesion, suspicious malignant skin lesions, urinary disturbances or any deviation from the normal findings be discovered, the individual is told to consult his family physician at once; and to all, the importance of regular physical examinations is stressed. The applicant is told that no further free service will be available from the health personnel. As a result of this initial fact finding procedure, a number of physicians are reporting that more and more are coming to their offices for life extension examinations.

Free Immunization

The Law directs that the State Board of Health make investigations as to the cause, prevalence, and distribution of communicable diseases and take such steps as may be necessary to ameliorate the same.

The trained health officer is a specialist in the prevention of disease just as in any other branch of medicine. It, therefore, would seem that immunization of all classes against small pox, typhoid and diphtheria would be the duty as well as the professional privilege of the health authority.

The medical profession of Arkansas is divided on this question. A number of the county societies, as well as many physicians outside of the societies, feel that it is not only the duty of the health authorities to do this work, but that it offers great relief to the medical profession in caring for many who will not or do not pay for the service, and ultimately results in increasing revenue due to stimulation of general desire for the service. On the other hand, another group is actually insistent that this practice is an infringement on the rights of the general practitioner and tends to alienate the public from the old established custom of depending on the private physicians for medical care, or in other words, tends to promote State medicine.

Following the Council's report and consistent with the State Board of Health's reply, an effort has been made and is now being made to reconcile methods of procedure in accordance with the wishes and demands of each local county society.

This fact must not be overlooked, however, namely, that there is an increasing demand on the part of the public to have general immunization against the above enumerated diseases. A spirit of fair play and full cooperation must obtain on the part of the medical profession. This applies not only to the immunization question, but involves a prompt reporting of notifiable diseases to the health authorities, the filing of birth certificates, the signing of death certificates and proper instructions to the patient and family members as to proper precautions to avoid infection. The responsibility reaches even further than this. Hygienic and sanitary environment is a matter which should concern every physician; he, more than anyone else, can contribute to the improvement of the same.

The Children's Charter as set out by the White

House Conference and the Follow-Up White House Conference in Arkansas, March 1 and 2 of this year, provides for the formation of an organization which is now in process which will involve every county and community within the State probably furnishing one of the most excellent opportunities ever afforded for the physicians to cooperate with the various official and voluntary agencies in making available to the future child of Arkansas its Bill of Rights under this Charter. The Bill of Rights is attached to this report to be filed as a matter of record.

The American Medical Association has recommended that the organized medical profession accept this opportunity and both policies and methods to be used under this program will be determined largely by the attitude and actual service afforded by the medical profession.

It is the judgment of your committee that if the medical profession of Arkansas should accept its responsibility in this far-reaching and most popular project, it will have its opportunity to endear itself to the people and be rewarded with measurable results which will reflect credit and be a source of great pride to every physician.

(Signed)—

C. W. GARRISON, Chairman
J. S. JENKINS
J. B. JAMESON
E. J. MUNN

THE CHILDREN'S CHARTER

President Hoover's White House Conference on Child Health and Protection, recognizing the rights of the child as the first rights of citizenship, pledges itself to these aims for the Children of America.

I. For every child spiritual and moral training to help him to stand firm under the pressure of life.

II. For every child understanding and the guarding of his personality as his most precious right.

III. For every child a home and that love and security which a home provides; and for that child who must receive foster care, the nearest substitute for his own home.

IV. For every child full preparation for his birth, his mother receiving prenatal, natal, and postnatal care; and the establishment of such protective measures as will make child-bearing safer.

V. For every child health protection from birth through adolescence, including: Periodical health examinations and, where needed, care of specialists and hospital treatment; regular dental examinations and care of the teeth; protective and preventive measures against communicable diseases; the insuring of pure food, pure milk, and pure water.

VI. For every child from birth through adolescence, promotion of health, including health instruction and a health program, wholesome physical and mental recreation, with teachers and leaders adequately trained.

VII. For every child a dwelling place, safe, sanitary and wholesome, with reasonable provisions for privacy, free conditions which tend to thwart his development; and a home environment harmonious and enriching.

VIII. For every child a school which is safe from hazards, sanitary, properly equipped, lighted and ventilated. For younger children nursery schools and kindergartens to supplement home care.

IX. For every child a community which recognizes and plans for his needs, protects him against physical dangers, moral hazards, and disease; provides him with safe and wholesome places for play and recreation; and makes provision for his cultural and social needs.

X. For every child an education which, through the discovery and development of his individual abilities, prepares him for life; and through training and vocational guidance prepares him for a living which will yield him the maximum of satisfaction.

XI. For every child such teaching and training as will prepare him for successful parenthood, homemaking, and the rights of citizenship; and, for parents, supplementary training to fit them to deal wisely with the problems of parenthood.

XII. For every child education for safety and protection against accidents to which modern conditions subject him—those to which he is directly exposed and those which, through loss or maiming of his parents, affect him indirectly.

XIII. For every child who is blind, deaf, crippled, or otherwise physically handicapped, and for the child who is mentally handicapped, such measures as will early discover and diagnose his handicap, provide care and treatment, and so train him that he may become an asset to society rather than a liability. Expenses of these services should be borne publicly where they cannot be privately met.

XIV. For every child who is in conflict with society the right to be dealt with intelligently as society's charge, not society's outcast; with the home, the school, the church, the court and the institution when needed, shaped to return him whenever possible to the normal stream of life.

XV. For every child the right to grow up in a family with an adequate standard of living and the security of a stable income as the surest safeguard against social handicaps.

XVI. For every child protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship of play and of joy.

XVII. For every rural child as satisfactory schooling and health services as for the city child, and an extension to rural families of social recreational, and cultural facilities.

XVIII. To supplement the home and the school in the training of youth, and to return to them those interests of which modern life tends to cheat children, every stimulation and encouragement should be given to the extension and development of the voluntary youth organizations.

XIX. To make everywhere available these minimum protections of the health and welfare of children, there should be a district, county, or community organization for health, education, and welfare, with full-time officials, co-ordinating with a State-wide program which will be responsible to a nation-wide service of general information, statistics, and scientific research. This should include:

(a) Trained, full-time public health officials, with public health nurses, sanitary inspection, and laboratory workers.

(b) Available hospital beds.

(c) Full-time public welfare service for the relief, aid, and guidance of children in special need due to poverty, misfortune, or behavior difficulties, and for the protection of children from abuse, neglect, exploitation, or moral hazard.

For EVERY child these rights, regardless of race, or color, or situation, wherever he may live under the protection of the American flag.

Dr. C. W. Garrison,
Little Rock, Arkansas.

Dear Doctor:

Dr. Jameson and I, as members of your Committee on Health and Public Instructions, herewith make a joint report of our review of the proposed report of the committee to the President and members of the House of Delegates and have the following comments to make:

1. Corrective Clinics.

We oppose the operative health clinic and believe surgeons should do the necessary charity surgery.

The birthday examination is not a preventive health measure and should be omitted.

2. Free Immunization.

The immunization clinics should be held only at the school houses on a specified day and those failing to avail themselves of this service at that time should be sent back to the family physician. No immunization shots should be given in the Health Unit office, or other than stated above.

We think that some steps should be taken to instruct and educate the public through the State and County Societies, rather than through the Health Unit.

This could be done through the newspapers and motion pictures having the endorsement of organized medicine.

Sincerely,

J. B. JAMESON, El Dorado
E. J. MUNN, El Dorado

The so-called corrective clinic to my mind is not a good thing for many reasons, some of which mentioned in your report. Clinics to my mind should be for diagnosis and advice. Then all records gone over as to their needs and the facilities for adequate provision for these needs.

Classified as to emergency, urgent, but not emergency and those that can be on a waiting list also classified as to the amount of real benefit that can be expected in each case as some of them are and will always be hopeless. Those that can be adequately cared for by the family physician. Hospital facilities and the necessary after care. Corrective clinics without follow ups and after care in all cases at times do more harm than good. So the clinic for diagnosis and the advice, and the surgical or other work to be done, to my way of thinking, should be separate and no work be done until cases were all classified into urgent, wating list curable, benefited, hopeless, those to be cared for by family physician. Those who can pay a small fee, those who can pay what it is worth and the large number of charity, and in all cases some fund to provide adequate after care, appliances, glasses, etc.

"In most cases where clinics were organized by individuals incompetent physicians do the work."

This being true, the diagnostic clinic becomes more important, for after these cases are classified as to their needs the real work should only be done by men of known outstanding ability, or by those approved by some committee from the State Society.

2. Men of outstanding ability or those approved by above committee.

3. Physical diagnosis when made noted on a permanent record. Using Bel or US PH nomenclature by number.

5. Diagnostic clinic expenses only.

Corrective clinic to conform to classification mentioned above with some provision for all adequate after care to really correct the deficiency as found and restore the child as far as possible to useful citizenship.

To my mind all preventive medicine should be under the jurisdiction of State and County Board of Health.

Respectfully,

JOHN S. JENKINS, Pine Bluff

Dr. Earle H. Hunt: I make a motion that this report be discussed now.

The President: It is customary to refer all these committee reports to the Reference Committee and await the report and consideration of the Reference Committee. You have heard Dr. Hunt's motion. The will of the House of Delegates will prevail in this regard.

Dr. H. T. Smith: I second the motion.

Dr. Hunt: My reason for making this motion is to discuss it while it is fresh on our minds. This question appeals to all of us. In fact, most of us are badly hurt by some of the things that are being done. That is the reason I want the motion brought up. If you rule it out, I would make an appeal. I believe this is the logical time to discuss the report. Dr. Garrison is here to defend himself.

The motion being put, it was carried.

The President: You have decided to discuss this now.

Dr. Hunt: As I made the motion, I take the liberty of getting up first. I can't agree with Dr. Garrison's report. It is hard for me to believe that Dr. Garrison is in sympathy with the medical profession of Arkansas. I had him tell me personally that State medicine was coming and we might as well swallow it. For my part, I am not in favor of swallowing it. The wholesale mutilation of children in the public schools, etc., is to be condemned by all of us. He says the State office isn't back of that. The county health nurse in my county said she was instructed to attempt to get up such a clinic in Johnson County. The doctors in Johnson County didn't back her in any way nor will we. So far there have been no clinics and there will not be any in Johnson County wherein the doctors are connected with it. The nurse tells me she has been in service for several years, and before coming to Johnson County, she thought the doctors should

do the immunization, but she had been instructed to do it. Dr. Horner of Coal Hill said she knocked him out of $600 during this past year. The doctors need the money. As to toxin-antitoxin shots, I have had a few children get rather sick in my office when I was giving them. The nurses have been doing this promiscuously in all of the counties. Dr. Garrison's report rather insinuated that the doctors have been derelict in their duty in attending to charity patients. There isn't a doctor here or anywhere else but what will take care of any charity patients; there is not one in the world today, but what has given more in proportion to what he has made during his lifetime than John D. Rockefeller has given to charity. We are all willing and glad to take care of those charity patients. I have had patients come to my office and ask me about toxin-antitoxin shots for the children. You get up at three o'clock in the morning, rain or snow, and go out to their house and tell them that is the thing to do, and then the nurse gives free shots at her office. In Morrilton the other day, the county health nurse received patients right there in the courthouse. The State Board of Health undoubtedly knows about all this, and it is directly antagonistic to the doctors of the State of Arkansas. I have the greatest respect in the world personally for Dr. Garrison. He is a personal friend of mine. He has been in my home and I have been in his home. I don't want to insinuate anything personal against Dr. Garrison, but I am absolutely against his system. That is the reason I want that brought up today. I would like to hear from some more of you. (Applause).

The President: Is there any objection to the Chair promulgating a rule that each man be limited to three minutes?

Dr. C. E. Dungan: Aside from the financial part of vaccination, I don't believe the doctors will ever starve to death because they don't get to vaccinate children. I personally would like to get rid of that part of my practice. I have helped to conduct some clinics, especially following the flood of 1927, for typhoid immunization. The thing that I saw that I thought was the most hazardous thing about vaccinating against typhoid was the use of those serums that may produce a reaction where there was a lack of understanding of the physical fitness of the patient to be vaccinated. I noticed so many nurses, and even have seen some doctors, give typhoid vaccination to tubercular that produced a very profound reaction and in some cases, I thought, caused a reactivation of the condition, a reaction that produced active tuberculosis when otherwise it may have become quiescent. I think that is to be condemned, because the nurses are not acquainted; they give little children the same size doses as adults. I have seen that done and it is wrong, in my opinion. I don't think they are trained to do that kind of work or have sufficient knowledge to determine whether they should give tubercular a dose of active toxin that may produce activity and cause injury. That is my reason for condemning public health vaccination promiscuously.

The President: The Chair will not recognize anybody who is not a member of the House of Delegates.

Dr. H. T. Smith: I happen to be the chairman of the committee that made the investigation regarding the conditions over the State of the present State Board of Health. I sent questionnaires to all the counties of the State, to presidents of the societies. The returns were almost unanimously in favor of opposing the program of the State Board of Health and I would like to hear just what you all think about the health situation. I wasn't entirely satisfied with my investigation and would like to hear from as many as possible.

Dr. G. C. Wood of Grady: The difficulty in giving diphtheritie antitoxin is that it causes several anaphylactic reactions which the nurse, after she gave them, wasn't competent to treat. In typhoid immunization, they immunize them from the cradle to the grave. Old patients 80 years old are given typhoid vaccination and get a pretty stiff reaction. Typhoid isn't contracted by any one past the age of 60.

Dr. S. A. Drennen: I would like to make this motion, that Dr. Garrison prepare and present to this body his specific proposals as to what he proposes to do to remedy this situation. We can talk all day here pro and con in regard to this condition; I would like to see Dr. Garrison's specific proposals as to how he proposes to remedy the now existing condition so that we will have peace and harmony again in the Society. Seconded.

Carried.

The President: Is there any other discussion?

Dr. Earle Hunt: I want to get an amendment in there. I move that Dr. Garrison bear in mind when making this report that the State Board of Health is a baby of the Arkansas Medical Society and that he is a child of the Arkansas Medical Society, because I remember how the law was passed and well do I remember when Dr. Garrison was elected and who helped elect him. He has been elected by the State Medical Society and he is working for the State Medical Society of Arkansas.

Dr. C. W. Garrison: I want to gratefully accept the remarks that have been made by Dr. Hunt and others. I feel that I am well mindful of the many very great privileges and services offered to me in my office by this group of gentlemen right here. Dr. Hunt prefaced his remarks by quoting something I said to him. The sense of what I said to him I have said to many of you. I have said that in my judgment some of these days we will have State medicine in some form. That I confidently believe. And I have further stated, and I am sure I did at the time I talked to Dr. Hunt, that it was up to the medical profession to begin to study this question seriously. That is my sentiment and I have no apology to make whatever. I have sounded it as a warning for a good many years, that if the medical profession doesn't take cognizance of the great sentiment for State medicine in Arkansas we will be confronted with it in the halls of the Legislature in the near future. There is not much to discuss, so far as I am concerned. I set it out pretty clearly in my report, and as to whether I was sincere in it I leave to each member to judge. I regret that I have been unable to meet the society in Northwestern Arkansas. It has been a greater regret to me than to the society. I made two long trips to meet the Benton County Society and I thought the last time I was there we had a very clear understanding. In Dr. Drennen's county, I went there and met with his county and I thought after a rather thorough and friendly discussion, we came to an agreement. My proposition then and to the Benton County Society was, You draw up—I didn't propose to do it. I didn't want to do it. You are the men who are offended—You draw up what in your judgment should be the same procedure in your county and see if we can get on that platform and work.

Dr. Drennen: You remember on that occasion, when we proposed that we fix this up in writing, you said you would rather do this thing verbally.

Dr. Garrison: Possibly I did, but I went away with the impression and am still of the impression that you were to draw it up in the form of a memorandum in order that there would be no question. That memorandum, however, was suggested at both societies in the light of having it submitted for discussion. I chose to delegate to you that privilege because, although I owe allegiance to the State Society—I am proud to be its member, I have tried to be a faithful member—yet there are some laws that are imposed on the State Board of Health that are laws of the State of Arkansas that concern 1,800,000 people which the executive officer must respect. You must not forget that, and I have been doing all I could and always will so long as I remain in office to stand for organized, legitimate, ethical medicine.

Dr. Hunt: Those so-called laws, are those laws passed by the State Legislature or are they rules laid down as allowed by law of Act 96 of the last session of 1913.

Dr. Garrison: The laws are mandatory so far as the Arkansas Medical Society is concerned, which directs the health officer to do what was formerly done by the family physician, and further directs him to make investigations as to the cause, prevalence and distribution of incurable diseases and take such steps as may be necessary to ameliorate the same and so on. Regarding vaccination, there are certain responsibilities that are imposed. The doctor referred to the practice following the flood. Every one of us, or probably at least one-third of the physicians of this State worked in that flood with their coats off and sometimes their shoes, and there were times when the physicians couldn't resort to the normal procedure.

The only way to prevent a serious outbreak of typhoid fever and other water-borne diseases was to get in there and do quickly the only thing we could do, viz., to immunize against this disease. I take my hat off to the medical profession and the fine work they did in the field at that time because, not-

withstanding the greatest flood this country ever saw, and notwithstanding all past history following such disasters, and we have had numerous rises in the incidence of this disease—at this time it was held down because of the application of scientific knowledge. I think that is a credit to every physician who got in there and did it under any circumstances. Regarding the flare up of a few cases of T. B., activating latent cases, it is a pretty serious responsibility, although we have to accept it, and willingly be responsible for a couple of hundred field health officers, but just to answer the doctor's remarks by asking him a question, in his judgment, have anyone of the private physicians ever been guilty of the same thing. If a nurse administered diphtheria antitoxin and had an anaphylaxis which she couldn't control and knew nothing about, I want to say that she acted without authority, without direction, because they have all been specifically told, and it is contrary to the policy of the central office, for any nurse to give antitoxin to any patient under circumstances, except under the direction of the doctor.

Dr. Hunt: Don't you think they never gave a shot of antitoxin?

Dr. Garrison: Yes.

Dr. Hunt: But the toxin-antitoxin they have had instructions to give.

Dr. Garrison: They gave that under my specific direction as an emergency, and I thought a sound policy following a wide drought affecting 22 States and the entire State of Arkansas.

Dr. Hunt: You are talking about 1929.

Dr. Garrison: I am talking about 1930-1931, and up to today, to the present month typhoid, diphtheria and small pox. Those are the three diseases we instructed the nurses to inoculate against in the past. Since the board's resolution, I have been taking it up by counties as rapidly as I could in order to get the will of the local society. Some of the counties, if not a hundred per cent, a very great majority of the doctors and members of the societies in the counties have preferred we continue to do that and we have been following the suggestion of the State Board of Health's resolution in its reply to the Council.

The President: The discussion will be closed and we will have the report of the Committee on Diseases of the Heart.

DISEASES OF THE HEART

A. G. Sullivan, Chairman

Mr. President and Members of the House of Delegates:

During the past year the officers of the Society deemed it advisable to appoint a committee to investigate the status of heart disease in Arkansas. As you know there has been a most alarming increase in the cardiac mortality rate in the United States as a whole, particularly since the War.

This committee during the past year has attempted to survey the situation in this State, and these charts illustrate what is occurring. The committee is indebted to Dr. Garrison and the State Board of Health for the figures on vital statistics.

This first chart shows the trend of mortality rates for the five leading causes of death in Arkansas for the decade 1921 to 1930, inclusive. In that period as you can see the cardiac death rate has risen from about 50 per 100,000 population to about 105 per 100,000 population. an increase of 110 per cent in ten years, making heart disease the leading cause of death in the State today. In this we are no different from other States, and from the United States registration area as a whole. The steady rise of this curve is discouraging, but when we analyze the deaths arranged by age groups we can feel a bit more optimistic.

In the chart we have the actual number of deaths arranged in 5-year age groups for 1921 and 1930. From this it appears that the major increases are in the age groups over 55. In other words the average age at death is slightly increasing, which is encouraging.

Because of the fact that at the present time death certificates do not require mention of the etiological type of heart disease from which the individual dies, it is impossible to learn from the records exactly what is causing this increase. Your committee in its report next year hopes to shed some light on this problem. This year your Chairman had the honor of being elected to the Advisory Council of the American Heart Association. We are indebted to them for some interesting charts which will be shown at a booth in the Scientific Exhibit. They are also supplying us each month with a limited number of pamphlets containing a special article on some phase of heart disease written by a recognized authority on that particular subject. Some of these will be available at the Exhibit booth, and in the future may be obtained from the Heart Committee on application.

In conclusion may I say your Heart Committee hopes in the future to continue its survey of heart disease in the State, to stimulate a greater interest in heart disease, to make information more readily available, and possibly to provide the opportunity for further study for those who are interested.

REPORT OF THE COUNCIL

Dewell Gann, Sr., Chairman

Dr. Gann, Sr.: We held our mid-winter Council meeting December 8th, and discussed business that came before it. The proceedings were printed in the Journal and I don't feel

it necessary to take up your time to read the report. Doubtless you will remember the committee appointed at Texarkana on Health Control. The members have done good work and submitted such a good report that I believe it will be in order to have it read. I will ask the secretary, Dr. Wolfermann, to read to you this report.

To the Council of the Arkansas Medical Society,

GENTLEMEN:

At the Texarkana meeting of the Arkansas Medical Society a subcommittee of the Council was appointed to investigate the activities of the County Health Units of the State Board of Health, including those of the County Health Officers and County Health Nurses, and report back at a subsequent meeting of the Council. This investigation has been carried out by means of meetings with the State Health Officer and the State Board of Health, by personal and written communications with physicians of almost all parts of the State, and by means of a questionnaire sent to the president of each county medical society in the State.

During the investigation much objection was found to the activities of the health agencies. The activities objected to may be briefly stated as follows:

1. The free immunization of large numbers of people against typhoid and diphtheria without attempting to differentiate between those able and those unable to pay for such services.
2. The activities of unsupervised County Health Nurses.
3. The practice of curative medicine by full-time salaried health officials.
4. The conducting of tonsil-removing and other clinics without consultation with physicians resident in the locality where the clinics are held.

Of these, the greatest part of the objection was to the immunization program, and a minor part to the actual practice of medicine by health officers and nurses, and the manner in which the clinics were conducted.

In fairness to the health authorities it was found that in certain counties the health work has been approved by the county medical society. The committee is convinced that these counties are in the minority. Unfortunately, the data at hand does not permit of an enumeration of the counties in which the health work is approved and those in which it is not approved by the county medical society.

The causes for the objections to the health activities may be briefly summarized as follows:

1. Physicians feel that everything pertaining to the health, public or personal, of the community in which they reside and practice should be within the sphere of their activities, and that preventive and curative medicine should not be practiced without their knowledge, cooperation, and consent.
2. Physicians believe that the examination of school children and other persons for physical defects and the administration of immunizing substances are a part of the practice of medicine and should not be done by a nurse or other unlicensed person.
3. Physicians believe that providing medical services of any kind for persons able to pay for such services is an injustice and should not be permitted. This is particularly true during times of economic depression when so much of the time and resources of these same physicians are given to the care of indigent persons from whom no remuneration is expected. Your committee has not encountered a single instance of a physician objecting to immunization because it would prevent disease and thus restrict his practice. To advance such a reason, your committee feels is absurd.

This committee is convinced that for the reasons given above, the resentment of physicians to the activities of the health authorities in some of the counties of the State is a real menace to all of the health program. It is further convinced that this resentment is growing rather than subsiding. We feel that more active antagonism to the practices thought to be objectionable has been delayed by the knowledge that this subject has been under consideration. We believe, therefore, that this committee is justified in making recommendations, that these recommendations, after amendment if thought advisable, should be approved by the Council, and that they be made the basis for a cooperative health program uniting the county medical societies and the health authorities in the different counties. These are as follows:

Public health programs can be better carried out with the cooperation of the medical profession and the health authorities than with the antagonism or non-support of the physicians. For this reason, we believe that plans should be perfected by the Board of Health whereby the physicians of the different counties may, if they wish, have active participation in any health program that is instituted. We believe that the physicians can be utilized in the examination of school and pre-school children for remedial physical defects. We would recommend that, in those counties where objection has been raised to the wholesale immunizations by health nurses, this work be done by the physicians. This work must all be done by the physicians or all by the nurse. To expect the nurse to administer the immunizing preparations to those unable to pay and leave for the physicians those that are able to pay is a plan impossible of accomplishment. We think that during the time of an immunizing campaign with the physicians participating definite office hours should be set aside by the physicians for this work, and, for those that are able to pay, an amount less than the usual office fee be charged. The immunizing materials used for charity patients should be supplied by the Board of Health; those used for pay patients should be obtained from the usual commercial sources or through some arrangement with the Board of Health.

2. Your committee would recommend the retention of the health nurses in those communities in which they are already at work and that plans be instituted for securing nurses where there are none now. We believe that the services of the nurses will be invaluable in a cooperating health program. By defining the activities of the nurses so that there will be no conflict with those of the physicians, invaluable aid will be rendered by them. In publicity work, in house visitations, in dietetic management, and in many other ways, the nurses should be used.

3. Your committee would recommend that county medical societies actively participate in the management of tonsil-removing and other clinics. We think that there is a demand for such clinics and other clinics and that they will be held regardless of whether the physi-

cians of the county participate or not. To this end it would be wise for each society to establish general rules providing for such clinics and give publicity to them for the guidance of Parent-Teacher and other interested organizations. As outlined by its Secretary, your committee has not found any defects in the policies of the Board of Health for management of such clinics.

4. Your committee feels that it would be unwise to complete this report without cautioning the members of the different county medical societies that they must abandon their traditional position of isolation and take an active part in preventive medical and other health programs. We believe these activities will be conducted, preferably under the leadership of regularly licensed physicians, but when such leadership is not available without the cooperation of physicians and in spite of their antagonism. Such leadership entails planning, foresight, work and cooperation to an extent possibly not heretofore undertaken by the medical profession.

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS

Sam J. Allbright, Secretary

The Board has held two meetings since the last Annual report; one on May 12-13, and one November 9th.

Twenty-eight candidates for license by examination appeared before the Board, all of whom were granted license. Twenty-seven were graduates of University of Arkansas School of Medicine, class 1931, one was a graduate of Barnes Medical College, 1898.

Two Licentiates were cited for trial and each license was revoked. The one for "Advertizing special ability to cure chronic and incurable diseases"—the other for having been convicted of a crime involving moral turpitude (Narcotic law).

The Board was re-organized with the following officers: W. W. Verser, Harrisburg, President; A. S. Buchanan, Prescott, Vice-President; Sam J. Allbright, Sec.-Treas., re-elected.

W. T. Lowe of Pine Bluff, A. S. Buchanan, and the secretary were named the committee on Schools and Reciprocity.

Fourteen applicants were issued license by reciprocity coming from the following States—Tennessee, California, Louisiana, Missouri, South Carolina and North Carolina.

Twenty-six Licentiates were endorsed to other States for license by reciprocity going to the following States: Ohio, Missouri, Texas, Mississippi, Nebraska, Arizona, Illinois, Iowa, Tennessee, Oklahoma, South Dakota, Kentucky and New Jersey.

It was the unanimous opinion of the Board members expressed at the last meeting that all the members of the Medical Staffs of the various State Institutions as well as the physicians employed by the State Board of Health should be required to possess license to practice Medicine and Surgery in the State.

SAM J. ALLBRIGHT, Secretary.

REPORT OF THE DELEGATES TO THE A. M. A.

Dr. E. F. Ellis: It was my pleasure to attend the meeting of the American Medical Association at Philadelphia last June. It was one of the most largely attended and perhaps one of the most interesting meetings ever held in the history of the association. Many things were brought before the House of Delegates for consideration. The most important, I think, were published in the Journal of January, 1932. I move its adoption. Seconded. Carried.

REPORT OF THE SECRETARY

Mr. President, Members of the House of Delegates:

Our Society ended the year 1931, with 1013 members. A few names were dropped from our roster for non-payment of dues, deaths and removals.

For the first time in several years the income from the Journal has shown a decrease. While the loss for 1931 was very slight, we may expect a greater reduction in income during 1932, as many of our national advertisers have either discontinued their advertising in the State Journals, or else reduced their space considerably, which is due to the general financial depression.

The amount of $220.87 in the Gorgas Memorial Fund is not included in the financial report.

Our financial statement shows:

Amount reported at last annual session			$13,512.62
Of this amount, there was in closed banks			10,810.85
Cash available			$ 2,701.77
Receipts			
From dues since last meeting		$4,184.00	
From Journal advertising		4,015.54	
From Student Loan:			
On principal	$ 110.00		
Interest	26.65	136.65	
Amount received from closed bank:			
Treas.'s acct.	$1,437.70		
Journal's acct.	532.80		
Sec.'s acct.	191.64	2,162.14	10,498.33
			$13,200.10
Bank service charge:			
Sec.'s acct.	$ 7.86		
Journal's acct.	4.75		
Treas.'s acct.	.72		13.33
			$13,186.77
Disbursements			
Vouchers, 360 to 390, inclusive, (Legal and current expense)			$ 7,622.89
Cash on hand			$ 5,563.88
Amount remaining in closed bank:			
Treasurer's acct.		$5,750.84	
Secretary's acct.		766.61	
Journal's acct.		2,131.26	8,648.71
Notes receivable, Student Loan Fund			360.00
			$14,572.59

In closing, I want to express my appreciation for the interest shown in our organization by the county secretaries, councilors and chairmen

of committees; and to our President, Dr. Rhinehart, my deep gratitude for the helpful services of his excellent leadership.

Respectfully submitted,
WILLIAM R. BATHURST.

REPORT OF THE TREASURER

Balance reported at last Annual Meeting, April 21, 1931		$ 7,526.52
Received from the Secretary during year:		
Acct. of Journal	$2,810.77	
Acct. of Secretary	2,353.03	
Student Loan:		
Payment on principal	110.00	
Interest	26.65	
Amount received from closed bank:		
Acct. of Journal	532.80	
Acct. of the Secretary	191.64	6,024.89
		$13,551.41

Disbursements

Vouchers 360 to 390, inclusive	7,622.89
	$ 5,928.52
Service charge by bank	.72
	$5,927.80
Amount remaining in closed bank	5,750.84
Balance on hand	$ 176.96

Respectfully submitted,
M. J. KILBURY.

The President: Is there anything under the head of New Business?

Dr. Kosminsky: Having listened to your publicity committee and the legislative committee, I would like to read a communication I received from a committee in the State known as the People's Conference on Government which is to meet at Petit Jean Mountain on May 26th and 27th.

March 28, 1932.

Dr. J. L. Kosminsky,
Texarkana, Ark.

Dear Dr. Kosminsky:

Some weeks ago a group of men came together to discuss matters touching our State problems. At this time and out of this meeting a committee was organized to promote a conference on Petit Jean Mountain, the purpose of which is briefly stated on the back of this sheet. Since some announcements in the papers regarding this program, the Committee has been greatly encouraged to believe some real constructive work can be done at this Conference.

Among other things coming before the committee for disenssion was regarding a plan whereby we could interest, in a more definite and direct way, the citizenship of the State. To this end and for this purpose we are asking at least two citizens in each county to become members of this Promotion Committee with us, and following the State Conference, return to the counties for the purpose of holding meetings at which time a united effort will be made to reach every nook and corner of the State disseminating information and urging intelligent cooperation for the restoration of economic and sound administration of State affairs. In this connection several of your friends advise that you would be deeply interested in such a movement and, therefore, we are asking that you be a member of this Committee from your county. You will be sent additional information and complete details of our program a little later. In the meantime, we have secured as speakers, Dr. Chas. W. Pipkin of Columbia University, Hon. Carl E. Bailey, Prosecuting Attorney, of Little Rock, Dr. John Hugh Reynolds, President, Hendrix College and Mr. John L. Hughes of Benton as well as many others who will discuss helpful and constructive topics during the Conference. In addition, Mr. Will Akers is Chairman of a Committee studying plans for the reorganization of State Government, which will be submitted at this Conference.

I hope to hear favorably from you advising that you will accept this appointment and cooperate in this important matter with us.

Sincerely yours,
JOHN L. HUNTER,
Secretary of Committee.

I would like to make a motion that the incoming president appoint a committee of at least three to represent the Arkansas Medical Society at this conference to protect our interests as seems fit through this organization. Seconded. Carried.

The President: The incoming president will conduct himself accordingly.

Dr. Drennen: If I am not out of order, at this time I would like to present a resolution.

RESOLUTION

Whereas; The membership of the Arkansas Medical Society is about one thousand; and

Whereas; The annual membership dues of the Arkansas Medical Association are the sum of five and no-100 dollars ($5.00).

Whereas; By reason of increased dues, lowered prices of agricultural products, poor market and poor collections, the remuneration of the members

of the Arkansas Medical Society has been so materially reduced as to create untold hardships.

Whereas; The Arkansas Medical Society is in great danger of a decrease in membership due to the now existing conditions.

Therefore Be It Resolved; By the Arkansas Medical Society in regular Convention, assembled do reduce the annual dues to the sum of three and no-100 dollars ($3.00), thereby promoting the relief, peace and happiness of the organization.

The President: This resolution calls for a revision in the Constitution and By-laws. It can't be acted on at this meeting, but must be drawn as a specific amendment to the By-laws and will have to lay over until next year.

Dr. Drennen: I have another resolution.

RESOLUTION

Whereas; It has been the custom of the Arkansas Medical Society in regular convention assembled to appoint an auditing committee to investigate the books of said organization.

Whereas; Owing to the limited time during the regular convention it has been impossible for said committee to conduct said audit on a business-like basis.

Whereas; The Arkansas Medical Society should have a regular and annual audit.

Therefore Be It Resolved; That a regular and official audit of the business affairs of the Arkansas Medical Society be made annually.

Be It Further Resolved; That findings of said audit be published in the official organ (Arkansas Medical Journal) of the Arkansas Medical Society in the monthly issue not later than one month previous to the regular convention.

Be It Further Resolved; That the President and Councillors of the Arkansas Medical Society be empowered to select said auditor and that his remuneration should not exceed the sum of..... ....., Dollars ($.....) for said services.

The President: This also provides for a change in the Constitution and By-laws because the By-laws provide that the Council shall act as an auditing committee to audit the books. If these resolutions are prepared as amendments, they may be presented at the last meeting of the House of Delegates to await action next year.

Dr. Drennen: I have another resolution.

RESOLUTION

Whereas; The Arkansas Public Health Department has caused to be placed in certain counties of this State organizations known as health units, and

Whereas; The practices of said director of these units, namely the giving or using of certain biologicals and the removal of tonsils to a great many children whose parents are in a position to substantially remunerate for said services, and

Whereas; By such practices of said units the income of the physicians and surgeons of these respective counties has been materially reduced, and

Whereas; Such practices tend to pauperize the citizenry of said counties, and

Whereas; The physicians of these respective counties have not been relieved of the burden of treating the indigent.

Therefore Be It Resolved; That a thorough investigation of the Arkansas Public Health Department be made,

Be It Further Resolved; That if the practices of said Health Units, upon investigation, are found to be true, the Arkansas Medical Society in regular convention assembled instruct the Legislative Committee of said organization to prepare and present to the next General Assembly suitable and constructive legislation to remedy this unnecessary evil;

Be It Further Resolved; By the..... County Medical Society, a component part of the Arkansas Medical Society in regular and official session instruct its delegate to Regular Convention assembled to use his influence in a thorough investigation of these practices.

The President: What is your pleasure with reference to this resolution?

Dr. H. T. Smith: I move that it be acted upon.

The President: Doesn't this duplicate in a way the committee appointed at the last meeting, the report of which you heard in the report of the Council? Any further discussion on the resolution?

Dr. Wolfermann: If Dr. Garrison presents his report before the final meeting of the House of Delegates and that report is read, then this resolution can be acted upon after hearing his report on the last day of the session.

Dr. Smith: I withdraw the motion.

Dr. Hunt: I move that a committee of two be appointed, and I not to be one of them, to confer with Dr. Garrison and request him to have his report here by the last general session of this Society, the report asked for by Dr. Drennen. I will stay with this thing until we get that thing stopped or somebody's job.

Seconded.

The President: I will appoint Dr. J. B. Jameson, of Camden and Dr. E. J. Munn, of El Dorado, already members of the committee on Public Health and Instruction.

The President: Proposed change in the Constitution and By-laws is the next business. The last two lines in Art. V, page 3, to read "that the Ex-Presidents shall have the power of voting on all subjects except the election of officers."

Dr. Robins: I move this proposed change be adopted. Seconded. Carried.

The selection of the Nominating Committee being in order, the following were chosen:

PERSONNEL OF NOMINATING COMMITTEE

First Councilor District—W. W. Verser, Harrisburg.
Second Councilor District—O. J. T. Johnston, Batesville.
Third Councilor District—S. A. Drennen, Stuttgart.
Fourth Councilor District—J. M. Lemons, Pine Bluff.
Fifth Councilor District—E. J. Munn, El Dorado.
Sixth Councilor District—L. H. Lanier, Texarkana.
Seventh Councilor District—W. G. Hodges, Malvern.
Eighth Councilor District—L. V. Parmley, Little Rock.
Ninth Councilor District—J. G. Gladden, Western Grove.
Tenth Councilor District—H. J. G. Koobs, Rogers.

On motion, the House of Delegates recessed.

HOUSE OF DELEGATES
Last Day

Thursday, April 7, 1932

The House of Delegates was called to order by the President, Dr. Rhinehart, at 1:30 p. m., there being a quorum present according to the attendance cards.

The report of the Nominating Committee was the first order of business.

For President: A. G. Harrison, Searcy; L. J. Kosminsky, Texarkana; F. O. Mahony, El Dorado.
For 1st Vice-President: S. B. Hinkle, Little Rock.
For Second Vice-President: Grace Tankersley, Pine Bluff.
For Third Vice-President: C. S. Holt, Ft. Smith.
Secretary: W. R. Bathurst, Little Rock.
Treasurer: R. J Calcote: Little Rock.

Councilors

Second District—L. T. Evans, Batesville.
Fourth District—H. T. Smith, McGehee.
Sixth District—A. C. Kolb, Hope.
Eighth District—M. E. McCaskill, Little Rock.
Tenth District—S. J. Wolfermann, Ft. Smith.
Delegate to the A. M. A.—D. A. Rhinehart, Little Rock.

Thereupon the Chair appointed Drs. Parmley, Foltz and O. J. T. Johnston as tellers, and the House of Delegates proceeded to ballot upon the three names selected by the Nominating Committee, Drs. A. G. Harrison, F. O. Mahony and L. J. Kosminsky, for the office of President-Elect.

Upon the third ballot, Dr. L. J. Kosminsky received a majority of all the votes cast and he was declared elected.

Dr. Mahony: I make a motion that the secretary be instructed to cast the entire vote of the House for Dr. Kosminsky. Seconded. Carried.

Dr. H. F. H. Jones: I make a motion that the rest of the names that have been recommended by the Nominating Committee be elected by acclamation. Seconded. Carried.

The President: The Secretary will cast the ballot for the rest of the nominees. Reports of Committees now in order. Dr. Garrison, chairman of the Public Health Committee was to meet with his members and submit a report this afternoon.

MEMORANDUM—CLINICS AND IMMUNIZATION

It being recognized that immunization through the use of biologicals against smallpox, typhoid fever and diphtheria is the chief means of controlling and eradicating these diseases, and whereas the Arkansas Medical Society has pledged its membership to the protection of the citizens of the State and its support to the State Board of Health.

Therefore, BE IT RESOLVED, that the following cooperative plan of attaining the desired end, namely, the eradication of these diseases, be offered to the State Board of Health for approval:

1. Since conditions vary widely in different sections of the State as to population, accessibility, economic status and adequacy in number of physicians that the plan be modified to meet the needs of each county as determined by the physicians therein and the State Board of Health.
2. That every effort be made by the health personnel under the direction of the State Board of Health to keep the physicians advised as to the health program.
3. That the State Society requests and urges its members to cooperate to the fullest extent in promoting the health program and where possible attend and participate in any clinics or group meetings occurring in their community.
4. That publicity precede the holding of immunization clinics setting out that they are to be held for the benefit of those who are unable to pay for same and that all be urged to secure immunizations from their family physicians.
5. That the County Society be requested to authorize one or more of its members to be in attendance.
6. That the State Society request the physicians of each county to fix a nominal immunization fee for those unable to pay the regular professional fee and offer free service to those who are unable to pay, and that biologicals be furnished the physicians through the local health personnel at the State Board of Health contract price for the under-privileged group.
7. That all physicians fill out record cards to be furnished by the State Board of Health and filed with the local health personnel as a matter of permanent record for school use and other purposes.

8. Clinics. That corrective clinics—orthopedic; eye, ear, nose and throat; fact-finding, etc., be held in accordance with the prescribed policy of the State Board of Health as approved by the Council.

9. That any infractions of an agreed policy, on the part of the local health personnel be submitted to the State Health Officer.

10. That the Society pledges its support and urges all of its members to encourage and cooperate in the physical examination of school children and pre-school children and offer all reasonable assistance to the end that those handicapped by corrective defects may be given an opportunity to enjoy their inherent right under the Children's Charter.

C. W. GARRISON, Chairman
J. B. JAMESON
E. J. MUNN

Dr. Garrison: The other committee members request that I particularly call attention to this section which I will read again. In other words, that has been our effort for sometime to carry out the policies consistent with the local medical profession and the State Board of Health. I offer the resolution for adoption, although I am not a delegate.

The President: You have heard this resolution. What is your pleasure?

Dr. Thos. C. Watson: I move its adoption. Seconded.

Dr. Koobs: I ask that this resolution be read again as I am not quite sure I understand some of the contents.

Dr. Hunt: As a whole and on the surface, this report looks to be a fairly good one. No. 3, the health program, I don't know what the health program is. If it is anything like it has been, I am ag'in it. No. 5, the county society be requested to authorize one or more of its members be present at the clinics or the immunizations. No. 6, sets a nominal fee for those unable to pay. I think that they should go in under the head of charity. No one has refused to vaccinate. Take them in as charity. No. 8, just what was it that was recommended or passed by the Council and which Council?

The President: The report of the Council of the Arkansas Medical Society, was published in full in the Journal and read in the session on Tuesday afternoon.

Dr. Hunt: We want it read again.

The President: It was with reference to the regulations governing the holding of clinics as established in the policies of the Board of Health. They are not in this particular report of the Council, but they were approved. They were gone into very carefully by the committee of the Council and were approved. Dr. Garrison, have you those policies?

Dr. Garrison: Yes; they are in the report which I filed here as chairman.

The President: That's right. They have been read here. Any further discussion, Dr. Hunt?

Dr. Hunt: That was the report turned in by the Council.

The President: In other words, the Council approved the regulations for holding these clinics.

Dr. Hunt: I see no particular objection to that matter. I believe that covers about all the objections that I see. If those rules are abided by, personally, and, I think, collectively none of us are opposed to the Public Health Program; that is, so long as it does not absolutely run over the doctors as has been the case in the past. I would like to hear from some more of you.

The President: We find this is in the Reference Committee's report and we think it would probably be advisable to postpone the discussion on this particular motion. Keep the motion in its present status until after we hear the Reference Committee's report and then we will proceed with the discussion.

REPORT OF REFERENCE COMMITTEE ON COMMITTEE REPORTS

H. Moulton, Chairman

We, your committee on reference, after due deliberation and careful study, beg to submit the following:

(1) Especial Commendation of the Scientific Program Committee;

(2) The Scientific Exhibits Committee;

(3) The report of the legal adviser is both wholesome and instructive and is heartily indorsed by your committee;

(4) We give especial indorsement of the report on Medical Legislation and we would respectfully recommend a closer cooperation between individual members toward our legislative committee in the event of future legislation;

(5) After a thorough study of the publicity committee report, your committee would recommend that Radio and Press privileges as set out in said report be under the direct supervision of each county society, and that individual names of doctors making the broadcast, or articles written for the Press, be withheld from the public, but signed by county society or committee of said society; It is the opinion of your committee that Section 3 of this report setting out the tendencies of certain individuals or groups soliciting or contracting for medical or surgical care is spe-

cifically covered by Section (5) of Chapter (9) of the by-laws pertaining to county societies, and that physicians guilty of such practice are ineligible for membership. Sections (4) and (5) of this report, pertaining to public health workers, public health clinics, etc., will be determined by the House of Delegates on the report of Committee on Health and Public Instruction;

(6) The report of our Hospital Committee is thoroughly approved;

(7) After careful thought and consideration of the report on health and public instruction, your committee unanimously agreed that owing to certain motions passed at the first meeting of the House of Delegates we must respectfully refer this report to the House of Delegates for final action;

(8) The report of the Committee on Diseases of the Heart is thoroughly approved and we recommend that said committee be continued.

(9) The Official Report of the Councilors was thoroughly considered and your committee believes that this report should be subject to such modifications as may result from final action by the House of Delegates on the reports of Committee on Health and Public Instruction;

(10) The report of the State Medical Examining Board is heartily approved.

(11) The report of the delegate to A. M. A. meeting was thoroughly approved and we especially commend Dr. Ellis for his time and efforts spent in behalf of the Arkansas Medical Society.

Respectfully submitted,

H. MOULTON, Chairman
SAM J. ALLBRIGHT
S. A. DRENNEN
H. J. G. KOOBS, Committee

The President: You heard the report of the Reference Committee on the committee reports. What is your pleasure?

Dr. Garrison: There is one explanation I would like to make before you put it to a vote. There was some question raised regarding the nominal fee where a professional fee couldn't be paid. The recommendation of your committee leaves it to the county society to determine its own affairs. That's exactly what that resolution proposes to do and some counties very much prefer to fix a nominal fee of fifty cents or a dollar. Others do not like that. That's all there is in the two references there, giving each county society the privilege of determining what it desires to do about it.

The President: We have up for considera tion now the report of the Reference Committee. We will take up Dr. Garrison's committee a little later.

Dr. Hunt: I move it be adopted. Seconded. Carried.

The President: We will now go back to a consideration of Dr. Garrison's committee report. Dr. Wolfermann has the floor.

Dr. Wolfermann: There are two things in that report that I think I should like to question. The report in itself seems to me, if lived up to, to answer very well what this Society wants. I say, if it is lived up to. I think it can be lived up to if each county society will adopt what we have tried and proved last year in Sebastian County can be done. There is one exception I take to the report, where it says some place that this agitation for corrective clinics is by the parents. The majority of the agitation for these corrective clinics is by the nurses more than by the parents. But, regardless of whether that may be true or not, this much certainly is true and we proved it, I think, last year, that each county society will have a public relations committee and anything that is attempted in that county must come through that public relations committee. If the Modern Woodmen want a speaker, they call up the public relations committee. If the Parent-Teacher Association wants a speaker or health clinic, our local health officer calls the chairman of the public relations committee of the medical society. That is approved and handled through their chairman and when that is done and, if this is lived up to, I think it will be a solution of the subject.

Dr. Hunt: As Dr. Wolfermann said, if this resolution is lived up to, I see no teeth in it and frankly I see no reason why it should not pass, but before it is passed and before the subject is dropped I want to take time to take a gentle slap at the State Board of Health. I believe those seven members have been derelict in their duty.

The President: Dr. Hunt will confine his remarks to the matter before the House.

Dr. Hunt: I have it before the House. That's all I want to say.

The President: Have you some question, Dr. Koobs?

Dr. Koobs: Gentlemen, we are all quite familiar, I think, with the disturbances and troubles we have had during the past year, and I am sure we all are anxious to settle these things amicably and peaceably and friendly, so that the Public Health work may be conducted in the right sort of manner, cooperatively between the physicians in the State and the State Board of Health and the State Health Officer. The things that have

been found fault with are few, but they were distinctive. One was that the public health nurses were instructed to give immunizing treatments for small pox, diphtheria and typhoid. The objection that was made by the physicians was that this was not proper, that it was in a measure unscientific and it was unfair to the physicians. The other feature was that these immunizations were given gratuitiously regardless of any one's ability to pay or not, and that they were given indiscriminately. Now, we hope that with the proposition that's been made here in the work of Dr. Garrison that these will be overcome. Certainly, if the suggestion made by Dr. Wolfermann, and as has been practiced in Sebastian county is carried out that a public relations committee be organized in each county society and that they have control of this situation, I think that will eliminate our trouble very well. There is this one thing yet I would like to ask: In this report of Dr. Garrison's, there is no specific statement made, either directly or by implication, that the immunization treatment should be given by physicians only or under their direct supervision. I would very much like a little elucidation on this, if it is to be given by the physicians; if not, it should be incorporated.

The President: I would just like comment briefly. This has been the outstanding problem before the administration of the Arkansas Medical Society during this last year. Personally, I think the committee report as submitted by Dr. Garrison is entirely in keeping with the ideas of the officers of the Society and the Council, some of the members of which have spent a great deal of time and energy in the consideration of this question. I want to take this occasion to call your attention to one thing in this report and that is that the county medical societies participate in this work. I also want to approve the remarks of Dr. Wolfermann when he said that a public relations committee is an essential in the county society for the control of this work. Now, those two things mean that each county medical society be an actively functioning organization. Next year or the year after we may have this same question come up and, if it is the fault of the county society in not cooperating with the Board of Health it will be the county medical society's fault and not the fault of the policies of the Board of Health or the other officers. Any other discussion on this question?

(Cries of "Question.")

A motion to approve the report was carried.

REPORT OF THE REFERENCE COMMITTEE ON THE PRESIDENT'S ADDRESS AND OTHER OFFICERS

We think these messages are excellent and contain many worthwhile suggestions.

Regarding the message to the House of Delegates we make the following specific recommendations:

We recommend that the Secretary of the Arkansas Medical Society advise Arkansas's representation in Congress that the Arkansas Medical Society favors the Shoulder's Plan of Governmental care of ex-soldiers. We think that the President's suggestion that physicians become more politics-conscious is a very good one and we suggest that individual members of the Society communicate with their respective representatives in Congress regarding the Shoulders plan.

We suggest that each county medical society appoint a Publicity Committee which will have control of medical pubicity such as radio addresses, newspaper articles, etc.

Regarding medical legislation: We doubt the advisability of asking the Legislature for any additional Medical Legislation at the present time. We do think that some plan should be devised whereby an authentic list of the licentiates of all Medical Boards should be filed with some State official. This would prevent the possible backdating of any license.

We commend the recommendation that each Councilor district organize a district society.

We approve the suggestion of considering redistricting the Councilor Districts. We suggest that the House of Delegates authorize the President to appoint a committee to consider this matter.

We also suggest that the House of Delegates authorize the President to appoint a Constitutional Committee to consider the matter of a new Constitution of the Arkansas Medical Society.

We believe that the State dues should not be reduced at the present time.

The address to the General Session is heartily endorsed and approved.

Respectfully,

R. B. ROBINS, Chairman
M. L. NORWOOD
W. M. MAJORS
E. H. WHITE
S. J. WOLFERMANN

Dr. Foltz: I move its adoption. Seconded. Carried.

Dr. Don Smith: I want to make a motion that the President appoint a committee to redraft the Constitution, it being suggested that the Constitution is a little old, and report at the next meeting.

The President: I think that was provided for in the adoption of this report; also a committee to consider redistricting the State.

REPORT OF COUNCIL

Dewell Gann, Sr., Chairman

Tuesday, April 5, 1932.

The Council met at 12:30, called to order by President Rhinehart.

Present: The President, Dr. Bathurst, Secretary, all the Councilors but Dr. Archer.

Guests: President-elect Mock, Mr. Deisch, attorney, and the following ex-presidents: Vinsonhaler, Ellis, Moulton, Lemons, Caldwell, Norwood and Barlow.

Councilor Wolfermann, as chairman, Smith and McCaskill were appointed by the President to act as a committee to audit the books of the Secretary and Treasurer.

The President declared the meeting adjourned.

SECOND DAY

Wednesday, April, 6, 1932.

The Council met at noon.

Present: The President and Secretary and all the Councilors excepting Archer, John and Purifoy.

Guests: Mr. Deisch, Dr. Wootton, ex-president and the seven ex-presidents, who attended the previous day's meeting.

The President stated that he would at the last meeting of the Council call upon the Councilors to report on the conditions in their respective districts. He also stated that owing to the present financial depression, the Council should be less liberal in their appropriations.

Dr. Bathurst gave a resume of conditions as affecting the Society and the advertising in the Journal.

On motion, it was decided to discontinue the appropriation of $100.00 to the Cancer Control Committee for the coming year, and that the President and Secretary use their best endeavors, consistent in their good judgment to secure through negotiations with the parties so affected a reduction in the amount of money heretofore appropriated annually for services to be rendered.

The Secretary was directed to pay all expenses incident to the annual meeting.

The auditing committee reported as follows:

To the Council of the Arkansas Medical Society:

We, the Auditing Committee, have examined the books of the Secretary and have found the records to be correct.

S. J. WOLFERMANN, Chairman
H. T. SMITH
M. E. McCASKILL

On motion, the same was adopted.

It was the sense of the Council that the employment of an accountant to audit the books of the Secretary and Treasurer was unnecessary.

The President declared the meeting adjourned.

THIRD DAY

Thursday, April 7, 1932.

The Council met at noon.

Present: President and Secretary, all Councilors except John and Archer.

Guests: President-elect Mock and the Ex-presidents.

The Editor, on motion, was authorized to use his discretion and best judgment as to the character of the advertisements of members in the Journal as long as it is in keeping with accepted practices of the A. M. A.

Moved that the Pulaski County Medical Society be given the moral, financial support and encouragement of the Society to proceed in the matter of the Trinity Hospital.

Reports from the various Councilors were made and their districts seem to be well organized.

In certain districts where the number of physicians in any county were too small to organize a county society, these men should join some neighboring county society.

Dr. Rhinehart thanked the Councilors for the cooperation that they gave him.

Adjourned sine die.

Dr. Gann, Jr.: I move the adoption of this report. Seconded. Carried.

The President: Anything under the head of New Business?

Dr. Koobs: I would like to say a word in regard to the program. It has occurred to me that we are going along with our program in about the same old rut we have been for the past 25 or 30 years. There is progress in medicine and, with the example we have in the various states surrounding us in giving these clinical congresses, I think we could take them for a pattern and improve our programs in the future.

The President: Your remarks will be referred to the Program Committee for the next meeting. The next is the selection of meeting place.

Dr. Sullivan: On behalf of the Garland County-Hot Springs Medical Society, it gives me a great deal of pleasure to extend to you a most cordial invitation to meet in Hot Springs next year. It isn't necessary for me to detail the numerous advantages which Hot Springs possesses as a meeting place for this Society. Most of you have been there before and are fully aequainted. If you would like to come over there again next year, we would like mighty well to have you. I thank you.

Dr. Tarkington: I move we meet in Hot Springs next year. Seconded by several.

The President: Any other invitations? Carried.

The President: The next meeting will be held in Hot Springs. I now declare the House of Delegates adjourned.

GENERAL SESSION

The General Session was called to order at 1:30 o'clock, p. m., April 5, 1932, by Dr. Rhinehart, President.

Invocation by Rev. C. M. Reves, Pastor First Methodist Episcopal Church, South.

Almighty God, Father of all Mercy, we lift up

our hearts to Thee in grave recognition of Thy kindness to us. It is fitting that we should honor Thee in all our ways. We should seek Thy blessings in all our undertakings. Recompense us at this time with Thy Divine favor and grant us Thine heavenly benedictions. We cannot come to such an hour as this without being reminded of that ever increasing stream of blessings which waters the life of man, that privilege to live in an age which has been made possible for us through the labors and the sacrifices and the sufferings of those who have gone before us. For our priceless and everlasting heritage, we offer Thee our thanks and praise. Accept our gratitude for all of the progress which has been made in the blessed art of healing since that far off day when the Son of Man, full of compassion and tenderness, touched the bodies of men and with that touch made them whole. Bless these men who administer to the bodily ills of mankind and hasten the day when the world through a larger knowledge of the truth shall have a richer and a fuller life. Bestow Thy blessings upon these who compose this body. We thank Thee for their ministry to their fellowmen. Grant that they may strive always to show themselves worthy of the ideals of their noble profession. May their joy and satisfaction in life come from a consciousness that they are doing Thy will in their services to suffering humanity. We make our prayer in the Name of that Great Physician and from Whose Life and Ministry have come our richest blessings. Amen.

The President: The Governor has kindly consented to bid you welcome. It is with great pleasure that I present the Governor of the State of Arkansas, Hon. Harvey Parnell.

Mr. President, Ladies and Gentlemen and Guests of the Arkansas Medical Society:

It gives me great pleasure to welcome the members and ladies of the Medical profession of our great State to its Capital City, in convention. I greet you firstly, because the people of Arkansas like you; secondly, because I like you; and lastly, because we all know that a great deal of good will come out of this meeting.

Gentlemen, yours is, and rightly should be, the most honored of the professions, because you have unselfishly striven for better living conditions, better health and higher standards in your professional attainments and institutions. You have done these things without regard to cost to yourselves and regardless of whether you received pay for your services or not. You have done these things of your own accord and without Governmental pin-pricking.

In fact you have been responsible, through your organizations, for practically every law we have governing the practice of medicine. You are responsible for the creation of the State Board of Health, for the lowered death rate among the people of our State and for the high standard of medical education required of those who are to fill your places in the next generation. Your State Examining Board is a criterion by which a doctor's ability is measured. The School of Medicine, a branch of the State University, is the realization of the dreams of those doctors, most of whom have passed beyond, and I glory in your fight to keep it on a par with the best Medical Schools in this country. I am told that about 70 per cent of the physicians of Arkansas are graduates of our own Medical School. That is a tribute in itself to your ceaseless efforts.

And all of these things have come about through organization—this organization.

Because of Societies and Associations, such as this one, the old "hokum" and superstitions in the lay minds of past generations have largely disappeared. No more we wear nut-megs and balls of asafetida on strings about our necks to keep smallpox, diphtheria and pneumonia away. Instead we become immune through vaccination. No more do we search the whole country for a mad-stone when we are bitten by dogs. Instead we ascertain whether or not the dog was rabid and then take what the laymen call "the shots" for it, if the dog was found to be mad. No more do we close up the house like a furnace when we have pneumonia. Instead we go to the new oxygen method.

These things and many others you have taught us through your persistent plans of education of the public. We expect much more of you in the future and we know our confidence in you will not be wasted.

In recent years, we have noticed your organization has taken a more active interest in Legislative procedure regarding those things relative to your profession. That is well, because the law-making bodies of this country know your organizations will sponsor nothing except that which is good for us all. Where else can the Legislature go for proper information on health subjects?

I know many of you personally. Some of you have served me and members of my family. I desire to know all of you.

So again let me welcome you to this meeting and to Little Rock. May it be even a greater meeting than those of the past.

I thank you.

ADDRESS OF WELCOME FOR LITTLE ROCK

Honorable H. A. Knowlton
Mayor of Little Rock

Mr. President, Members of the Arkansas Medical Society, and the Woman's Auxiliary, Ladies and Gentlemen:

It is both a pleasure and a privilege to be with you on this occasion and bid you welcome to our Capital City.

It is a pleasure always to be associated with those who are devoting their lives to helping humanity. The medical profession, in my judgment, is one of the two greatest professions in which man can engage, and sometimes I have wondered if that physician who really puts into his life the spirit and teachings of the Great Physician is not making his profession the greatest calling a man can follow.

And it is indeed a privilege to welcome to our city a group representing, as you do, a profession having the highest standards and ideals of service. Each of you represents long years of preparation—and this has carried with it sacrifice of time and money.

Some knocker has said only two kinds of people in America get first-class medical service, the very rich and the very poor. The first are the only ones who can pay for it; the second get it through charity; also that a hospital is a place where a man either goes in poor or comes out poor. This is an extreme view, of course, and I think the man who said that must be the twin brother of the one who said a doctor is a man who makes his living directing patients to a specialist, and a specialist is a man who knows

more and more about less and less, and can't tell what is wrong with you if you haven't any teeth.

I have some first-hand knowledge of what it costs to make a doctor, as I have a son graduating this year from Johns Hopkins, the four years there being preceded by a four-year University course—and the end is not yet. He will soon be seeking experience. I hope none of his patients may have this epitaph placed over his grave:

"In memory of our father, gone to join his appendix, his tonsils, his kindneys, his ear drum, and a leg prematurley removed by a surgeon who craved experience."

I wish it was possible for you while here to perform one operation, and thus confer a boon on the people of this State, and that is: Cut the cancer of politics out of the Arkansas Legislature and bind up the wound with the cord of unselfish service.

In welcoming you to Little Rock I am welcoming you to a city which, in spite of the depression, lived within its income last year though that income was $110,000 less than in 1930. We are operating on a budget this year and keeping within it. Our city warrants are cashable on demand at 100 cents on the dollar, and we are discounting our monthly bills, and our city bonded debt is less than that of but few other cities in this country of similar size.

Little Rock last year passed its one hundredth birthday. It has a population of 81,000, composed of a citizenship that cannot be surpassed. In this time of stress they have been patient. Comparatively few law violations have occurred.

While you are here, I hope you may have the opportunity of seeing our hospitals, our splendid schools and public buildings and churches; also attractive residential sections.

We try to accord some special privileges to our local physicians, and we are especially anxious that nothing may occur to mar your visit among us. Everything in the City Hall above the jail floor is at your command.

Again I bid you a most cordial welcome to our "City of Roses."

ADDRESS OF WELCOME FOR THE PROFESSION

H. Fay H. Jones, President
Pulaski County Medical Society

Mr. President, Honored Guests, Members of the Society, Ladies and Gentlemen:

You have just heard the welcome extended to you by our Honorable Mayor and His excellency, the Governor of Arkansas. It is, therefore, a pleasing honor to me to be able to extend to you on behalf of the Pulaski County Medical Society, welcome to our city in this, your Annual Convention.

This marks the second meeting of the State Society in Little Rock since 1925, when it celebrated its golden anniversary. On that occasion, the welcome address was delivered by my father who was then the President of the Pulaski County Society. Sentiment is therefore combined with other emotions as I extend the welcome to the present convention. Your host considers it a great privilege and honor to have you as our guests this year. We have looked forward to your assembly with great anticipation and have planned to the best of our talents that you would be insured a most successful, enjoyable and pleasant meeting.

We open the doors of our homes unto you and to yours and hope that you will partake of our hospitality in generous measure. We welcome you to our city which is your city and which is filled with friends and relatives dear to most of you. For the short time in which you are here you are privileged to do as you will and to enjoy yourselves to the fullest. We hope that you will lay aside your cares and your worries and enter, if you please, into the spirit of the holiday and to make merry with us in happy reunion.

It perhaps is not amiss to caution our guests of the Society that the Legislature is now in session. It is well that you acquaint yourself with your fellow members for you will see groups here and there in conference which on first sight might appear to be a Committee meeting of the Arkansas Medical Society. On second sight, you might awaken to find yourself in the midst of a Bull Session with characteristics of famed Spanish Matadors. A rather ardent young reporter of the Gazette reporting a certain session of our Arkansas lawmakers, approached the busy City Editor with the statement, "At last I have the perfect story." "Did the man bite the dog?" inquired the editor of the club. "No, said he, "A bull threw a legislator."

It is, therefore, fitting to say that we are doctors in convention assembled and lest we suffer the consequences of the legislator, we had best confine ourselves to the thought that we are men of science.

My friends, it is worthy to note that many changes have been made in our city and its environment since you were last here. Most of you are interested in those changes because of the fact that many of them have been occasioned by your participation whether you realize it or not. Greater Little Rock now has five Class A hospitals to all of which have been added modern equipment and facilities which now make them equal to the hospitals of any city of similar size.

You also know that the University of Arkansas Medical Department is located here. Many of you are Alumni of that institution. It is generally conceded that the Medical Department of the Arkansas University ranks among the first of any medical department of any school throughout the land. The class and character of the men who have composed the student body of that institution have been and will continue to be the foundation upon which that reputation has been earned. You, throughout the State, are entitled to the credit for the high degree of attainment which our school has accomplished. You have encouraged attendance there of a class and caliber of men who are worthy representatives of our profession. The graduates who have left to go beyond the confines of our State into other lands, have acquainted themselves with honor and reflected great pride upon their Alma Mater. It is, therefore, with a great sense of pride that we can refer to this outstanding achievement of doctors throughout the State.

The Committees have striven to prepare for you a worthwhile program not only for your enlightment, but for your entertainment as well. They have worked untireingly to insure a successful and timely meeting. Because of the class of men who will appear on the program and because of the program they will advance, it has been necessary to forego the conducting of clinics at the various hospitals. You will, I am sure, find yourself deeply repaid after hearing the messages our speakers will bring to you.

Again, may I say the City opens its heart unto you without restriction. Enjoy yourself to the fullest of our hospitality to the end that your

visit will have been most enjoyable and your stay most pleasant, and that when you leave us to go to your various homes, you will have made many new friendships and will always cherish the wish to come again.

I thank you.

ADDRESS OF WELCOME ON BEHALF OF THE WOMAN'S AUXILIARY

Mrs. Ernest Harl White, Little Rock

Madame President, President of the State Medical Society, Members of the Auxiliary, and Guests:

It is a privilege and a pleasure to welcome you to the city of Little Rock this year.

The Entertainment Committee of which Mrs. M. J. Kilbury is chairman, has worked and planned zealously to furnish entertainment and pleasure for you, and we hope that you enjoy it so much that you will want to come again.

If you are not acquainted with your State Capital, try to become so this time, you will find us most hospitable and anxious to make your stay so happy that when you return to your homes, the memories will linger.

Perhaps, many of you do not know that the women of greater Little Rock and many within the State have a Club building all our own, The Woman's City Club. And as one of the officers of this club, I invite you especially to visit it, enjoy its many features, among them the reading room, rest room, and the tea room.

There are many places of historic interest here, that may interest you, among them, the beautiful Old State House, now called the War Memorial Building, where the first two years in Medicine of the University of Arkansas is taught.

The members of the Pulaski County Auxiliary have looked forward to your coming, and so, friends, it is with joy that we welcome you to your Capital City.

RESPONSE TO THE ADDRESS OF WELCOME ON BEHALF OF THE ARKANSAS MEDICAL SOCIETY

A. G. Harrison, M. D., Searcy

Mr. President, Gentlemen of the Arkansas Medical Society, the Pulaski County Medical Society, Ladies of the Auxiliary, Ladies and Gentlemen:

When I was quite a lad, a neighbor boy came to my home to spend the afternoon. About sundown, we prevailed upon my parents to let me go home with him to spend the night. When we got there his father decided that they couldn't accommodate me and I was sent back home. The chagrin and humiliation has lingered in my memory ever since. and I have been exceedingly cautious about going places and especially to spend the night unless I knew it was all right with the head of the house. When I left home, I told my wife I might be back tonight, but, since listening to these most impressive addresses of welcome from such authentic sources, I shall call her and say that my welcome has been unquestionably assured and that I will not return until the final adjournment of the 57th meeting of the Arkansas Medical Society.

It is indeed a privilege and an honor to be the guest of your wonderful city. It is here where the foot-hills of the Ozarks of Arkansas mirror their beauties in the flowing waters of the Arkansas River. It is here where the swamp angels from the East and the "hill billies" from the West have assembed and, by their united and harmonious efforts, hove builded a city of a hundred thousand ambitious, progressive and intellectual people, the City of Roses, the Capital of our State. Arkansas's metropolis, our largest and wealthiest city. It is not only wealthy in commercial industries and enterprises, but it is exceptionally so in the material things which substantiate a city's foundation. Your religious and educational advantages are far in excess of those of cities much larger in size. Your colleges and public schools are the pride of our State and the envy of others. Graduates of your Class A medical school are going out into the world coping most brilliantly with those from Johns Hopkins, Rush, Tulane, Vanderbilt and other noted institutions of learning. Your hospitals, while not the largest in the country by any means, are one hundred per cent efficient in equipment and personnel. This is made possible by the ambitious, talented, skilled, learned medical profession, the equal of any to be found in the great medical centers. For this fact the country doctors are thankful, for sometimes our hardest problem is to get rid of our chronic neurasthenics, hypochondriacs or otherwise seriously complicated cases. We very conscientiously refer them to Little Rock because we know that here the most skilled, modern and effective treatment may be had of any disease which human flesh is heir to. We can see no good reason why any one should go further, or should ever leave Little Rock in search of a medical or surgical school, and not many do. A few ladies, of course, for there is only one difference between a lady's operation and her wardrobe. She goes to a foreign market to secure her clothes in order that she may secure exclusive models and designs; but when she comes home, a sense of refinement and modesty prevents her talking about it. That is left to her neighbors and friends. But when she goes to a foreign city for an exclusive operation by an exclusive operator, she returns home with all rights reserved to do her own talking and she raves about her operation. (Laughter). But, God bless the ladies. They are such admirable, delicious and exquisite creatures that they are entitled to any privilege from which they might derive any pleasure.

Among Little Rock's most valuable assets are two daily publications with international recognition. They herald the news of the world in such a concise, interesting and instructive manner that there is hardly any excuse for any Arkansas child to grow up in ignorance. Even though they be too poor to purchase clothing and books to attend school, if they would make a systematic study of the Arkansas Gazette or the Democrat, they would grow up very much learned. Their supreme sense of honor, justice and fairness at all times to every cause is so unfalteringly consistent that I have often thought that it would be a blessing if the editorial staffs of these two great papers could constitute the trial jury for the courts of Arkansas and their decision be accepted as final. Little Rock's riches are greatly enhanced by a truly conscientious, enterprising, public-spirited, economical mayor, Mr. Knowlton. He has proven beyond all question that the enviable eminence of success can be obtained without regard to selfish motive or violence of conviction.

Let me reassure you that we are proud and very happy to be the guests of your truly great and exceptional city. But cities like individuals are never perfect, and your dearest friends will not elaborate on your virtues and neglect to make mention of your imperfections. I feel I would be guilty of criminal negligence should I not at this opportune and most appropriate time

offer a criticism of Little Rock's lack of appreciation of an orthodox medical profession which is evidenced by the fact that your city is overflowing with scheming, grafting and incompetent impostors engaged in the art of healing. However, we are cognizant of the fact that the remedy for this deplorable menace can only come from the legislative chambers, and I hope that the gentlemen of the Pulaski County Medical Society will pardon me if I repeat the phrase of a talk made at Dr. Rhinehart's testimonial dinner last December. I can find no more fitting words upon this occasion. I said there in substance: May God speed the day when the Arkansas Medical Society could have the power to elect our State officials and if it could maintain the standards as established 57 years ago and as exemplified by these present officials, that huge carbuncle on the back of the State's neck, which has been traumatized and irritated and inflamed by the constant friction and infected by unprincipled, dirty, mercenary, septic politicians, would be so thoroughly and skillfully dissected as to leave only a slight blemish on the pages of history. And in future years there will come to you comfort, consolation, happiness and good cheer in the thought that you elevated Arkansas to that exalted plane to which her citizenry, industries, national resources and unexampled medical profession so justly are entitled. True representatives of our commonwealth shall drive kings and potentates from office and charlatans and patent medicine vendors will be seen leaving our State like rabbits leaving a burning sage field, and our public schools will operate on full time and full pay and on a cash basis. Then, too, there will be found in our midst and, almost as magical as king Solomon's Temple appeared on Mount Sinai, there will spring up in Little Rock, our boasted Capital, a building with great concrete slab foundations, enduring walls and massive columns, a dome and pinnacle with the statute of the Angel of Mercy with outstretched arms and beckoning hands, and a welcome to the poor and afflicted will be emblazoned in gilded letters on the Arkansas Charity Hospital. (Applause).

I wish to assure the city of Little Rock, the Pulaski County Medical Society, the Ladies Auxiliary, that I voice the sentiment of each and every member of this great organization, those here and who will be here and who are financially or physically unable to get here, when I express a profound and sincere appreciation of the cordial welcome we received in your midst. While we expect to enjoy to our fullest capacity our visit, we will in no manner betray the faith and confidence which inspired your generosity, for we are ever mindful of the fact that we are disciples of that great physician, Hippocrates, the father of medicine, whose life was characterized by culture, refinement, virtue, temperance and unswerving fidelity to every trust reposed in him. I thank you. (Applause.)

RESPONSE TO THE ADDRESS OF WELCOME ON BEHALF OF THE WOMAN'S AUXILIARY

Mrs. W. G. Hodges, Malvern

It is a great honor and a privilege that I esteem very much this afternoon, to have the pleasure of responding to the very cordial welcome which we have received.

In behalf of the Woman's Auxiliary to the Arkansas Medical Society, we gratefully accept your hospitality, and sincerely appreciate the many preparations made for our entertainment during our brief visit to your city, the City of Roses, and the Metropolis of Arkansas.

I admire your city, its beauty, its influence and its progress. You have many things for which to be proud, but I admire most of all the men and women who have made it what it is. I congratulate you upon your many noble achievements.

It is a fine thing to have a wide awake and prosperous city, but it is a finer thing to have the right kind of citizenship. I think you have been able to combine the very extraordinary material prosperity with that form of the higher life which must be built upon material prosperity if it is to amount to what it should.

The Arkansas Medical Society is a vital and responsive force in the State and the Auxiliary greatly appreciates the privilege of being affiliated with such an organization, an organization in which the spirit of unity and harmony is dominating and whose ideals are based upon unselfish service to mankind.

By this association new friendships are made, old ones bound more closely and the spirit of love and good will, which we may bestow upon each other, will give happiness in the days to come.

May I say that in the mind of memory, I shall draw precious recollections of friendship which time cannot tarnish, and which I hope time will even make brighter, these I shall value more than any honor which I might receive.

May I thank you again for your welcome and say that we are happy to be your guest.

Mrs. B. A. Rhinehart: On behalf of the Arkansas Medical Society and its Auxiliary, may we present you with this corsage to show in small part our pleasure in having you with us. We are glad you are here. (To Mrs. A. B. McGlothan, St. Joseph, Mo., President of the Woman's Auxiliary to the American Medical Association.)

Introduction of the President of the Woman's Auxiliary to the Southern Medical Association, Mrs. Chas. E. Oates, Little Rock.

Introduction of the President of the Woman's Auxiliary to the Arkansas Medical Society, Mrs. W. R. Brooksher, Jr., Fort Smith.

Introduction of the President of the Woman's Auxiliary to the Pulaski County Medical Society, Mrs. D. A. Rhinehart, Little Rock.

THE MEDICAL PROFESSION, THE AUXILIARY AND THE PUBLIC

Mrs. A. B. McGlothan, St. Joseph, Mo., President of Woman's Auxiliary to the American Medical Association

First I want to thank you for this gift of beautiful flowers which you have bestowed on me and which I very heartily appreciate, I assure you. I want to say also that I appreciate these very wonderful women who are the presidents of the various organizations who

have just been introduced to you and to tell you that they are, if not the very best, among the very best presidents of the Auxiliaries of the United States, and I have the privilege of knowing most of the presidents. I am not saying this everywhere I go because not all of the presidents are of the best.

REASONS FOR A WOMAN'S AUXILIARY—A REVIEW OF ITS PRESENT FUNCTIONS

I. Social

When the Woman's Auxiliary to the American Medical Association was organized, perhaps the foremost consideration in the minds of those promoting its organization was its social value within the medical profession itself. Some of the leaders in the State medical associations have said that since there are forces within the profession as well as without which are working against its best interests, the time has come when much thought should be given to bringing about unity and solidarity in the profession, and because the social instinct is, generally speaking, more highly developed in women than it is in men, they have felt that doctor's wives can perform a distinct service to the medical profession by helping to develop unity through fellowship between members of the doctors' families.

The secretary of a State Medical Association recently said: "It is ten years since we asked the women in our State to form an Auxiliary. We felt the need of such an organization, chiefly as a means of creating better fellowship among the members of the profession. We have found that it admirably fulfilled its social function. Wives have become acquainted, many difficult situations eased, many jealousies, especially in smaller communities, have been erased and the attendance at medical meetings has been increased tremendously. The women's annual State meetings which are held at the same time as the medical meetings serve to interest the wives and to bring out a much larger attendance than formerly among the membership. The usefulness of the Auxiliary in the entertainment of the wives of visiting physicians, not only at State meetings, but other medical meetings of all sorts, is obvious."

Briefly summarized an Auxiliary may by its social activities perform the following functions:

1. Bring about unity and friendliness through fellowship.
2. Assist with entertainment at medical meetings.
3. Increase the attendance of doctors at the various medical meetings.

II. Philanthropic.

Very soon after Auxiliaries began to be organized the groups discovered that mere meeting together in a social way did not create sufficient satisfaction to hold them together, that there must be activities in which they could participate. Thus the philanthropic function developed. A group thus interested found out what were its community's needs, and undertook to perform a further service by meeting one or more of these needs, which were usually related to the work of the medical profession.

The philanthropic work of Auxiliaries is as varied as the needs of the various communities or States. Because of women's age-old interest in charity and philanthropy and because of the varied needs of different States and communities, the National Auxiliary, while recognizing the value of philanthropic interest, does not have a philanthropic program. The president for the year 1931-1932 has frequently thought that it might be a valuable addition to the staff of chairmen to have a Philanthropic Chairman who would collect and disseminate to the various Auxiliaries information concerning the philanthropic work done by Auxiliaries all over the United States.

The reports from States show the following types of work, some of which might be classed as philanthropic-educational:

The Pennsylvania Auxiliary contributes to a Medical Benevolence Fund for the care of aged and infirm physicians and other dependents.

The Missouri Auxiliary contributes to the Andrew Walker McAlester Memorial Fund for carrying on health education.

A number of State Auxiliaries have established loan funds for the education of medical students.

The Issaquena-Sharkey-Warren Counties, Mississippi, Auxiliary has contributed $2,500.00 to a tuberculosis preventorium and is attempting to raise $2,000.00 more for the same purposes.

The Caddo Parish, Louisiana, Auxiliary

sponsors a school for potentially tuberculous children at a preventorium, taking charge of the social and educational side of these children's lives.

The Norfolk, Virginia Auxiliary raised $1,600.00 to endow a bed unit in the Tidewater Victory Memorial Hospital and collected 1,200 books and 2,000 magazines and is establishing permanent libraries in hospitals and welfare organizations.

Many Auxiliaries have cooperated in service to tuberculosis open air camps, in Red Cross, Better Homes, and Community Chest Campaigns, have furnished milk for undernourished children, and have made obstetrical kits and layettes. One Auxiliary has become a Red Cross unit, one unit in a small town acts as an Auxiliary to the local hospital, and many others perform various services for hospitals.

The Kentucky Auxiliary sponsors the Jane Todd Crawford Memorial.

It is impossible to enumerate all the kinds of philanthropic work that Auxiliaries are doing. Enough has been told however to indicate the scope of their philanthropic interests.

III. Legislative.

The National Auxiliary has a Legislative Committee merely as a "reserve force" to act upon request of the American Medical Association through its Advisory Council for the Auxiliary. However, action by a State Auxiliary on any such request must be subject to the approval of the Advisory Council appointed by the State Medical Society.

Many of the State Auxiliaries have Legislative Committees which act when called upon to do so by their respective State Medical Societies. Instances could be given showing that the value of such service has been highly appreciated by the State Medical Associations.

A few of the State Medical Societies have prepared for their Auxiliaries studies of their health and medical laws so that the Auxiliary women may be informed and able to speak or vote intelligently on such laws. In not a few instances State Medical Societies have asked their Auxiliaries to participate actively in influencing legislation of importance to both the medical profession and the public.

As certain of the Auxiliary activities may be termed philanthropic-educational — others may be considered legislative-educational. The Florida Auxiliary, supervised by the State Board of Health, in 1931, issued a course on the medical and health laws of Florida which was to be used as a study course in the Auxiliaries of the State. The Georgia Auxiliary was active in 1931 in getting out information on the Ellis health law to provide a health officer and board of health for each county and in having the law safeguarded where it was operating. The health and medical laws of Kentucky were prepared in the form of studies by the State Board of Health and are used on their programs by the Auxiliaries and by other women's organizations in Kentucky with which the Auxiliary women are affiliated.

In Michigan the Auxiliary members inform themselves on various bills of importance to physicians, although they take no active part in influencing legislation. In Minnesota the Executive Board of the Auxiliary held a legislative luncheon during the session of the State Legislature when they were given information by the president of the State Medical Association, on the current bills relating to medicine. The Nebraska Auxiliary studied its State health laws. In Oregon the Auxiliary women at the request of the State Medical Association, did yoeman's service for a basic science law. The Texas Auxiliary did outstanding legislative work under the supervision of the State Medical Association.

No Auxiliary should undertake to act in legislative matters unless such action is requested by the Advisory Council of the Medical Society to which it is auxiliary.

It is apparent that if an Auxiliary is to be an intelligent "reserve force" it must be informed on the medical and health laws and regulations of its own community and State. Quoting again the State secretary mentioned above, "In legislative years it is highly valuable, we find, to inform the Auxiliary thoroughly upon measures and policies approved by the legislative committee of the State Association. It is a protection against chance mis-statements and mis-quotations from among our own ranks, and equally a powerful weapon in the formulation of policies of every type of women's groups."

It should be stated here that the policy of the American Medical Association is "that the attitude of the Auxiliary in legislative

matters should be based on instructions received from the proper officers of constituent State medical associations concerned."

IV. Educational

It is the *educational* and consequent public relations function of the Auxiliary that have been most difficult to perform. It is evident that if we as Auxiliary women expect to become a liaison between the profession and the public it is essential that we first inform ourselves concerning matters of personal and public hygiene and *approved* methods of community cooperation.

Realizing the necessity of self-education, the Program Committee outlined a suggested program, and has prepared Study Envelopes for use by local Auxiliaries which desire them and whose Advisory Councils approve of their use. The first Study Envelope was on Organization and Program; No. 2, on The Most Common Defects in Children; No. 3, The County Health Unit; No. 4, Communicable Diseases: Diphtheria, Small Pox, Typhoid Fever; No. 5, Measles, Whooping Cough, Scarlet Fever.

The leaflets in these Study Envelopes are written in simple language, are compiled from information selected from the best up-to-date medical authorities, and together with the program, have been approved by a member of the National Auxiliary Advisory Council appointed to read and criticize them.

Several of the State Medical Societies have outlined a study program for their Auxiliaries. The New Jersey State Medical Association published a pamphlet entitled "The Relation of the Medical Profession to the Public" which has been distributed quite widely amongst the Auxiliaries and is used for program material. As has already been stated some of the Auxiliaries have made an intensive study of their State Medical and Health Laws, others have informed themselves concerning local health regulations and ordinances and local and state health administration, as well as the programs of the voluntary and official health agencies, national, state and local.

Since the State Medical Journals and the American Medical Association Bulletin have begun publishing Auxiliary news, the women are more and more reading articles in the Journals and in the A. M. A. Bulletin, which give them valuable information concerning the work and ideals of the profession.

Increasingly, the Auxiliary women are using articles published in Hygeia for program material.

It is only by means of self-education that we may hope to become an ally of the medical profession and at the same time serve the best interests of the public.

V. Public Relations

The importance of the public relations function of the Auxiliary has been emphasized by members of the medical profession. When proper leaders have been discovered and proper methods of procedure devised, it is perhaps in the realm of Public Relations that the Auxiliary can perform its greatest service to the profession, by bringing about understanding between the profession and the public.

Quoting again, "A well schooled Auxiliary group reaches out into every phase of woman's organization work. The doctor's wife takes a part, and generally a prominent part, in public welfare work, parent-teacher work and Federated Club activities."

"The health programs of all these groups become more and more extensive each year. Frequently they are unwise and subject to cultist exploitation of the worst sort, and the County Medical Society and the physician himself are powerless to interfere. The doctor's wife, as a board member or officer or worker in the organization can and will interfere if she has behind her, her own educated and informed Auxiliary, advised and instructed by a council of the Medical Society. She becomes the doctor's representative and ally. The Auxiliary is, in fact, a liaison body which may well be molded into an important aid to the Public Health Program of the Society."

The president of another State Society says, "A point not to be overlooked is the fact that women, through their various organizations, are in a position to bring convincingly to the ear of the public information touching the problems of Organized Medicine," and one might well add the services of Organized Medicine.

If, as these doctors have stated, we as Auxiliary members are to become a liaison between the medical profession and women's

organizations, it is apparent that it is necessary for us to be willing to accept positions of leadership in such organizations when we are requested to do so. It is also apparent that if we as Auxiliary members in such positions hope to perform the functions expected of us by the profession and by the public we must first inform ourselves concerning the public hygiene problems and the health ordinances and health laws of our local communities and states.

Because we have needed suitable materials to suggest for use in other organizations in which we are leaders, some State Medical Societies have prepared programs and furnish materials for use by their Auxiliaries. This need was an additional reason for compiling the Study Envelopes described under the educational function for distribution through the Auxiliary Public Relations Chairmen to other organizations promoting health programs.

In addition to the Study Envelopes, the Auxiliary in the fall of 1931 distributed to the presidents and certain chairmen of the State Auxiliaries, a selected number of pamphlets secured from the Bureau of Health and Public Instruction of the American Medical Association for use on the Auxiliary programs and programs of other women's organizations, hoping by this means to encourage the public to form the habit of looking to the medical profession for information and advice on matters of health.

To this end the National Auxiliary also undertook to interest the constituent Auxiliaries in stimulating and, if requested, assisting their respective medical societies in broadcasting the radio health talks collected for this purpose by the Bureau of Health and Public Instruction of the American Medical Association.

In order that the public relations functions might be carried on effectively and intelligently the following recommendations were adopted at Detroit in 1930:

1. That every State Auxiliary have an active public relations chairman.

2. That she inform herself regarding the program of her own State Board of Health, particularly those phases of it which may be made effective more quickly and completely by having the aid of women's organizations.

In addition to the above recommendations it is evident that County Auxiliary Public Relations Chairmen should be informed concerning the work of their local boards of health, city or county, and should know what local voluntary health organizations are doing.

A recommendation was also approved at the Convention in Detroit in 1930 that each State public relations chairman and State Auxiliary president urge Auxiliary women to become members (as individuals) of other women's organizations and, when qualified, to accept leadership in those organizations.

Some of the organizations in which we have performed most effective service are parent-teacher and pre-school associations, federated women's clubs, the League of Women Voters, and the Auxiliary to the American Legion. There will be other organizations in almost every community in which Auxiliary women can work effectively.

At the Philadelphia Convention the recommendation was approved that county Auxiliaries be stimulated to appoint Public Relations Chairmen whose duties would be to keep in touch with women's organizations in their counties which promote health programs and arrange with them to use for such programs speakers who are members of medical societies and to inform such organizations as to where authentic health literature approved by the medical profession for use on programs may be secured.

It was also recommended that at least once a year each county Auxiliary hold an open meeting to which should be invited officers and leaders of all important organizations of women within the county, entertaining them as well as instructing them along lines of the aims of the medical profession in the advancement of health education. The chairman advised that this meeting be made a high spot in the year's program, a meeting of such pleasure and value that all women would consider it a privilege to attend. It was also commended that there should be at this meeting an exhibit of health literature including a Hygeia exhibit, with sample health programs, the Auxiliary Study Envelopes, and other health literature for distribution. It is gratifying to know that during the current year many of the Auxiliaries are carrying out this recommendation.

A few of the leaders in the National Auxiliary have been pioneers in work with other women's organizations. In one State three

members of the health committee of the State Congress of Parents and Teachers were Auxiliary women who did outstanding work in physical, mental and social hygiene, distributing literature, planning programs and securing speakers.

This year, the Program Chairman of the Oregon Auxiliary is chairman of the Health Committee of the Portland Federation of Women's Clubs; in Missouri, the State Auxiliary President-Elect is president of the Missouri Federation of Women's Clubs; the president of the Minneapolis Auxiliary is the Public Health Chairman, Fifth District, Minnesota Federaton of Women's Clubs. The leaders in almost every Auxiliary are also leaders in other organizations of women, and have frequent opportunities to carry on the Auxiliary public relations functions in these groups. A reivew of the work reported by the State Auxiliaries at the Detroit and Philadelphia Conventions and recorded in the "Minutes and Reports" of these Conventions reveals that an astonishing amount of public relations work is being done by the Auxiliaries. The Arkansas Auxiliary made a concerted effort to encourage birth regulation and distributed leaflets on communicable disease control to parent-teacher associations, pre-school clubs, study clubs and health units throughout the State. The California Auxiliary had many excellent programs by physicians and health officers which were open to the public. The Georgia Auxiliary has a Health Film Committee which provides this form of education to all units which ask for such service and the units actively cooperate with parent-teacher associations and women's clubs in promoting the correction of physical defects of children, in annual health examinations for servants, in campaigns for the eradication of the mosquito and the experimental work in trachoma. In Kentucky, in addition to studying the medical and health laws of the State and promoting such study in other women's organizations, the Auxiliary has made wide distribution of the leaflets on "Communicable Disease Control," and promoted an essay content amongst school children on "The County Health Unit" using the Auxiliary Study Envelopes as a text. The work of the Kentucky Auxiliary in sponsoring the Jane Todd Crawford Memorial through other organizations is another instance of work done by this Auxiliary. The District of Columbia Auxiliary cooperates with the District Medical Associations in a health education program by giving publicity to the meetings to increase attendance. The Caddo Parish Louisiana, Auxiliary at least once each year arranges for doctors as speakers at all parent-teacher meetings. In cooperation with other clubs this Auxiliary arranges a May Day program when doctors speak over the radio and give addresses in all the schools. In conjunction with the largest woman's club in Shreveport it presented the Canti-cancer film to the public. In Minnesota, the Auxiliary cooperated with the Minnesota Public Health Association in its "Tuberculosis Foe of Youth" contest among high school students. The Missouri Auxiliary supplies health literature for about nine hundred parent-teacher associations in the State as well as for the federated clubs of the State, and for the county superintendents in some counties for use of their teachers in the schools. In Virginia the Public Relations Chairman cooperates with the Y. W. C. A., women's clubs, parent-teacher associations and educational associations in sponsoring health lectures. Texas forges ahead in promoting birth registration, annual physical examinations, child health programs, and hay fever prevention by means of weed eradication.

In Pennsylvania, one of the outstanding bits of work promoted is that of Periodic Health Examinations. The following is the appeal sent out by the chairman:

PERIODIC HEALTH EXAMINATION

"One out of six applications for life insurance is declined or postponed. The annual health audit will detect albumin or sugar, high blood pressure, slight cardiac disorder, incipient tuberculosis, beginning neoplasm, and any and everything else. Your family physician will do the rest. Why does it profit a person to be an ostrich with his ailments, or like the Spartan youth to hide a disease until it gnaws out his vitals? Get the disease before it gets you. Get it early. Get it before you think you have it.

People have too long had such faith and confidence in their physician that they think he can cure anybody who has not been dead over three days. The profession admires the faith of their clientele, but dislikes to be put in such superlative and unequal tests.

If elevators are inspected regularly, why not one's mouth and teeth? If a boiler must

be examined regularly, why not your heart and lungs? You have tested the brakes on your car, why not the kidney function? You have your watch regulated, but not your diet. You have your batteries charged, but let your weight run down from disease.

Should the most complex and wonderful machinery in the world, that not made with hands, be allowed to become broken or impaired, to corrode or degenerate? Neglect your business if you must, neglect your golf if you can, neglect your wife if you dare, but don't neglect your physician and a yearly physical examination and health inventory on your birthday."

VI. Hygeia

For many years one of the chief activities of the Auxiliary has been the promotion of the circulation of Hygeia, as a means of Health Education for Auxiliary members and for the public.

At the Philadelphia Convention the House of Delegates passed the following resolution:

"WHEREAS, The periodical Hygeia, the health magazine published by the American Medical Association, is the only authentic health periodical available in this country; and

WHEREAS, This periodical was established by the Board of Trustees on recommendation of the House of Delegates to be the official voice of the American Medical Association in educating the public in matters of health; and

WHEREAS, it is the best medium for reaching the teachers of the young, and the pupils in schools throughout the country, in forming them of the progress of medical science and of scientific means for the prevention of diseases; therefore be it

RESOLVED: That the House of Delegates urge the Woman's Auxiliary to the American Medical Association, including the county, state and national organizations, to recognize as one of its chief activities the promotion of the distribution of this publication through parent-teacher associations, boards of education and similar bodies interested in education."

Because many members of the American Medical Association feel the need of a method of authentic education of the laity so that the public may understand the difference between scientific information and quackery, it publishes the health magazine, Hygeia, and asks the Auxiliary to make the promotion of its circulation one of the Auxiliaries' chief activities.

It is encouraging to know "that during the year beginning January 1 and ending December 31, 1931, the number of subscriptions secured by Auxiliaries was 50 per cent larger than during the previous year, and that the Woman's Auxiliary was the only source from which subscriptions were received that showed an increase over the previous year. 147 of the 387 units have participated in the work of promoting Hygeia."

This successful effort of the Auxiliary to carry out the request of the House of Delegates is an outstanding example of what the units all over the United States can do and are doing to extend the aims of the medical profession in matters looking to the advancement of health and health education.

These then are the chief present functions of the Auxiliary:

Social, to promote good fellowship, aid in entertainment at medical meetings, and increase attendance at such meetings;

Philanthropic, to give community service wherever such service is needed, particularly service related to the work of the medical profession;

Legislative, education in medical and health laws and participation in such legislation as is requested by the Medical Society to which we are auxiliary;

Education, to inform ourselves concerning questions of personal and public hygiene, community cooperation, medical and health laws, national, state and local, state and local health administration, and the relation of the medical profession to the public;

Public Relations, to aid the medical profession in its educational work with the public through organizations to which we belong:

(a) By accepting positions of leadership in such organizations, particularly on health committees, so that authentic literature may be chosen for programs and for distribution, that informed speakers may be selected, and that only such types of health projects may be carried on as are shown by our Advisory Councils to be scientifically sound;

(b) By promoting the distribution of Hy-

geia, the health magazine published by the American Medical Association.

This is not intended to be a discussion of methods, but it is not amiss to say in this connection that experience has taught us that not all women are interested in all the functions of the Auxiliary, and that we advise the division of the membership into interest groups, some performing one function, some another. The larger city Auxiliaries particularly have found this the best method for carrying on all phases of Auxiliary work.

Let me repeat that we should not undertake activities that are not approved by the Medical Society to which we are auxiliary, and that we should not fail to insist on the appointment of an Advisory Council or Counselor by the Medical Society.

Finally, I should like to call your attention to the following pertinent quotation from a past president of the American Medical Association: "Wherever the medical fraternity has held out a helping hand to the Woman's Auxiliary it has been gratified to find that the work of the Auxiliary flowed along safe and helpful channels, and the results proved worth-while."

The President: I take this opportunity to thank you on behalf of the Ladies Auxiliary and the members of the Society for your excellent and instructive address.

Vice-President Kosminsky: Last but not least comes the annual address of a man who has served us honestly, sincerely and diligently for the past year, whose record, I can say without fear of contradiction, will go down in the history of our organization as second to no president in its 57 years of existence. (Applause). I now take great pleasure and the honor of introducing to you Dr. D. A. Rhinehart, President of our Arkansas Medical Society.

PRESIDENT'S ADDRESS

D. A. Rhinehart, M. D., Little Rock

The president's address will be found on the first page of reading matter in this issue.

The following scientific papers were read and discussed at the conclusion of the President's annual address:

Aortic Regurgitation, Chaille Jamison, New Orleans, La.

Syphilitic Bursopathy of Verneuil, D. W. Goldstein, Fort Smith.

Report of an Unusual Surgical Case, W. T. Lowe, Pine Bluff.

Indications for Surgical Treatment of Tuberculosis, F. H. Krock, Fort Smith.

The Kline Test for Syphilis, Euclid Smith, Hot Springs.

Treatment for Anginal Heart Failure, Arthur G. Sullivan, Hot Springs.

On motion, the General Session adjourned.

GENERAL SESSION
Last Day

Thursday, April 7, 1932.

The General Session was called to order by Dr. Rhinehart, the President, immediately after the adjournment of the House of Delegates.

The President: Is there any Unfinished Business? If not, will Dr. Will H. Mock come to the rostrum? Dr. Mock, at this time I turn over to you this gavel symbolical of the presidency of the Arkansas Medical Society. With it goes all the privileges, troubles, trials and tribulations appertaining thereto.

Dr. Mock: Mr. President and Gentlemen: It is with the deepest gratitude and sincerest appreciation that I accept this symbol and insignia of the highest honor within the gift of the profession of Arkansas. When I look upon our retiring president and many other elegant and reputable gentlemen who have passed through this service, I realize that a precedent has been established, and I also realize that the demand is heavy and the requirements great, if I measure up to the high standard and the traditions of this office. Therefore, gentlemen, I solicit your aid, your advice and your earnest support in my endeavor to conduct the affairs of this office in a manner that will be entirely compatible with your feelings and wishes. I want to ask that you cooperate with me in an effort to free this State of quackery, irregularities, fraudulent practices and the very pernicious influences that the M. D.'s receive from these sources. I want to urge further that you give your enthusiastic support to your county society. Your society needs you and you need the association, the influence and the protection of your county society. I will say that, in the face of the present economic conditions, do not permit any influence or

condition to divert you from your honest endeavor or lure you from the path of organized medicine, or ethical practice. Be loyal to your town, to your community, to your ideals. And let's put our best efforts forth in the coming year and when you have done those things, gentlemen, you will have contributed very much towards stabilizing business, re-establishing confidence and promoting the welfare and the best interests of your citizenship, and you will add much to your glory, peace and happiness. (Applause).

Dr. Mock, in the Chair: The next order of business is the presentation of the President-Elect. I will ask the other two candidates to conduct him to the rostrum that you may all view him. (Applause).

Dr. Kosminsky: Mr. President, and Gentlemen of the Arkansas Medical Society: I am not ungrateful nor unmindful of the great honor you have just bestowed upon me. I want you to know that I am not the President-Elect of this Society or the men who alone cast their vote in my behalf, but I expect to serve you and will have to serve you not only as President-Elect, but as President of your Society for each and every member, irrespective of the manner in which he cast his vote. (Applause). I know of no organization that a man could be more proud to represent than that of his chosen profession, and had I not been elected as your President-Elect, one thing that happened while I was here, I had 100 per cent support from the colleagues of my home town, where I chose to practice my profession for the last 26 years. (Applause). I hope and pray that a Supreme Power may help me to conduct myself in the manner and dignity of my predecessors for the past 57 years as President of this great organization. I thank you. (Applause).

President Mock: Has any one anything to suggest for the good of organized medicine? Any further business to come before the Society?

Dr. Moulton: I move we extend a vote of thanks to Little Rock, the physicians of Little Rock and the hotels. Seconded.

President Mock: Moved that the medical profession of the State, the Arkansas Medical Society, extend a vote of thanks and appreciation for the many courtesies and kindnesses that we have received at the hands of Little Rock during our visit here. Carried by a rising vote.

President Mock: A motion to adjourn is in order.

Dr. Lemons: I move we adjourn. Carried.

Thereupon, the 57th annual session of the Arkansas Medical Society was declared adjourned *sine die*.

MEMORIAL SESSION
Marion Hotel

Wednesday, April 6, 1932, 8:30 to 9:30 A.M.

The Memorial Session was called to order by Dr. E. E. Barlow, chairman of the Committee on Necrology.

Invocation by Rev. Calvin B. Waller, Pastor of Second Baptist Church.

Our Gracious and Heavenly Father, Maker and Giver of all good and divine gifts. We thank Thee this morning for this daylight, for this sunshine, for the love and peace and joy that comes through the gift of Thine only begotten son. We thank thee for the inspiration that comes into our hearts as we meditate upon the service, upon the brotherhood, upon all the things for which the Man of Galilee stood and which he brought to life. As we remember that he went about doing good, so there comes to our own hearts and lives and consciences the feeling that we, too, may be helpers of our fellowmen. And we come this morning to render thanks for all these things and for the manifold things Thou hast bestowed upon us. And now, as we pause in this early morning hour to render our thanks unto Thee, we would invoke Thy prescience and power to rest upon this group of men and women, representatives of the great fraternity of medicine and those who seek to relieve human suffering. And we pray that Thy blessings may be upon their deliberations today as they seek through counsel and conference to better prepare themselves to be the servants of humanity. We pray that such plans and methods that are inaugurated may be from Thee and may they have Thy Divine approval and Thy Divine blessing. Bless their clientele back home and will Thou grant that those who suffer this morning among us and throughout the land may feel the touch of the Divine hand of the Great Physician, and that He may heal their hurts because they trust in Him. And grant that each of us may be representative of that Great Physician. We pray Thy bessings upon the memory of those who have passed out of this organization since last it met. We pray that their families may have the consolation of God and that the human sympathy that they will here express this morning in memorial of their loving dead may only add to the love and tenderness and comfort of the giving. Bless the memory of those who have gone, not only out of this group, but out of our families and out of our inner circles. God grant that they may through the memory of those who have gone become better men and better women. These blessings we ask not because we are worthy but in the name of Christ who gave Himself that we might live and we will praise Him forever and ever more. Amen.

"No Shadows Yonder," by Mrs. I. J.

Steed, soprano, and Mrs. Fred Perkins, contralto. Mrs. S. R. Crawford, pianist.

President Rhinehart: It has been the custom of the Arkansas Medical Society each year on the occasion of its annual meeting to hold a memorial service in respect to those of the members of the Society who have died during the preceding year. Since the organization of the Auxiliary, the Auxiliary has joined in this service. I will now call upon Mrs. C. G. Hinkle, of Batesville, for the Auxiliary's portion of the services.

MEMORIAL SERVICE OF THE WOMAN'S AUXILIARY

Conducted by Mrs. C. G. Hinkle, Batesville

"Just once for each the White Ship touches port;
Though none beholds its sails or sound is heard;
Yet while one waits,
Friend after friend goes silently aboard
The unseen ship, and onward said toward
The Golden Gates."

During the past year the White Ship twice visited the Woman's Auxiliary of the Arkansas Medical Society and took two of its members aboard.

On July 1, 1931 the Pulaski County Auxiliary was the Port visited and Mrs. Mary Farr French, widow of the late Dr. F. L. French, was taken aboard the Ship.

(Memorial to Mrs. French, given by Mrs. J. B. Crawford of Little Rock.)

Mrs. May Farr French, born April 3, 1864, in Washington County, Ark., moved to Little Rock at the age of two. Married Dr. F. L. French, July 19, 1899, survived by two sons and a daughter. For twelve years she was an invalid, known for her gentleness, patience and persistent cheerfulness in the face of all her suffering.

Mrs. C. G. Hinkle: On March the 26, 1932, the White Ship again touched port. This time the Garland County Auxiliary was the port touched and Mrs. W. V. Laws the passenger claimed.

(Memorial to Mrs. Laws given by Mrs. F. M. Williams, of Hot Springs.)

As the world was about to burst forth in praise with the Easter message of 1932, that of the Resurrection and Eternal Life, one of our number, Mrs. William V. Laws, was entering into that eternal life and the reward that comes to the faithful. Mrs. Laws was a charter member of the Woman's Auxiliary to Garland County Medical Society, a helpful member and for many years a regular attendant to the State and National conventions.

Those who knew Mrs. Laws recognized her sterling worth and strength of character which increased with the years, perfecting the well rounded woman that she was. Three outstanding characteristics marked her as one well to be remembered; her devotion to her husband and his profession, her service to those who suffered and were in need, and her loyalty to her church. In this different age many things attract from the home and its responsibilities, but Mrs. Laws was true and faithful to her husband and his profession, a devoted wife and helpmate. Her tender sympathy and helpful care of his personal and hospital patients was well known and she eased many a heartache and soothed many suffering in body. She was a loyal devotee to her church, a faithful follower of her Lord, experiencing many joys also having a fellowship with Him in great suffering.

Was Mrs. Laws' life finished, we ask? She was taken all too soon for those who knew and lover her, but who will say she does not live? Not only in the sweet and sacred recesses in the hearts of those who loved her, but as the Resurrection message rang out in the few hours after she passed away that Saturday night before the Easter morn, she too will live again as all who proclaim His name as Saviour of the world.

President Rhinehart: The hand of the Grim Reaper has fallen particularly heavy on the members of the Arkansas Medical Society during this past year. Twenty-six of our members have passed to the Great Beyond. All of these were men of sterling character and fine qualities. The time for these services will not permit of an individual eulogy for each of these men, so that reading their names will suffice.

DECEASED MEMBERS

Julius Kelly Sheppard, El Dorado, May 12, 1931.

John L. Butler, Sheridan, June 13, 1931.

John E. Guthrey, El Dorado, June 6, 1931.

Roscoe T. Gephart, Cotton Plant, June 24, 1931.

John R. Cunning, Lonoke, July 18, 1931.

John L. Jones, Searcy, July 27, 1931.

Harry Eugene Williams, Jr., Pine Bluff, August 22, 1931.

Henry Thibault, Scott, September 15, 1931.

William Preston Gardner, Texarkana, October 10 1931.

Harlan H. Smith, Calico Rock, October 14, 1931.

James H. Higgins, Altus, October 16, 1931.

William Henry DeClark, McGehee, October 30, 1931.

Benjamin C. Logan, Morrilton, October 31, 1931.

Edward Melton Pemberton, Little Rock, November 20, 1931.

Charles M. Routh, Harrison, November 27, 1931.

Arch Sylvester Chapman, Fort Smith, December 22, 1931.

William Enoch Jones, Little Rock, December 25, 1931.

Zilliba L. Kirkham, Little Rock, December 29, 1931.

William Edward Gray, Sr., Little Rock, January 10, 1932.

Julius Sheppard Moore, Arkadelphia, January 27, 1932.

William M. Moore, Arkadelphia, February 4, 1932.

William R. Reeves, Alma, February 7, 1932.

Charles Prickett, Malvern, February 23, 1932.

William E. Vaughan, Ashdown, February 27, 1932.

Arden Thos. McKinney, Little Rock, Mar. 17, 1932.

Cons P. Wilson, Fort Smith. April 1, 1932.

President Rhinehart: We will now have the memorial address by Dr. E. E. Barlow, chairman of the Committee on Necrology.

Mr. President, Ladies of the Auxiliary and Fellows of the Arkansas Medical Society:

Memories crowd fast upon the mind as the circuling months bring us again to this memorable anniversary, and we find ourselves pausing for a brief time to do honor to our departed brethren who have passed into the silent bourne, but whose memories are still enshrined in our hearts.

Lincoln felt the inadequacy of speech when he stood upon the battlefield at Gettysburg where brave men had given the last full measure of devotion to a great cause. Our words do indeed count for little in commemorating lives nobly spent in humanity's service; but it is fitting and right that a brief session of our meeting should be set apart in loving remembrance of those who during the past year have finished their serviees and who have gone to great reward.

We shall greatly miss the men who are gone from the fellowship of our Society, and their communities will miss them, yet it is good to know that those who spend themselves in the service of their fellowmen are always held in everlasting remembrance. The poet, Horace, said that in his poems he had built for himself a monument more enduring than stone. So does the "physician" by his life and work. By his skill he alleviates human suffering; by his fidelity he inspires confidence; by his uprightness of character he makes it easier for his to believe in goodness, and by his self sacrificing devotion to the good of others he rears a monument that time will not efface.

Some of those whose loss we mourn today had climbed high upon the ladder of success. They rendered notable service in places of distinction and of public honor. Others of them, worn out by the toil of the years, came to their end in places of comparative obscurity. But the history of our noble "profession" teaches us that many a physician has rendered notable service to the science of healing, although he served out all his days as a "country doctor." We are of those who believe that heroic service faithfully rendered rises majestically above the circumstances of time and place.

The deference and honor we would do our

friends and colleagues departed in this solemn service would be sadly lacking in full significance were we to let kind and appreciative words end forever the meaning of their lives to us. Is there not some message here today for us? Perhaps some challenge as the voices in the corridors of their life's efforts are heard no longer, and the place that knew them once, knows them no more.

Mount McKinley and Mount Everest are forever a challenge to those who would risk all to reach new heights. No illusions of a Garden of the Gods resting on their peaks draws men today, but a truer urge. The rolling deep of the sea called to men a challenge and frail barks fared forth to try the great unknown. Only recently the air has called to men, and brave, daring spirits have answered and ridden their dreams into practical craft of the air. There is that in the soul of Man that would measure up to the colossal. The lofty calling of the "physician" has been an answer to this challenge. Today, I believe they who have gone on from our fellowship, would send a message to our ears, could they but hear. It would call us to ever keep before us the truly great and noble in life and service.

Perhaps their voices would remind us of the challenge of the ages of time of which we are a part. Napoleon drew up his army on the sands of Egypt, and we well recall the dramatic words of this "Man of Destiny," as looking up he beheld the hoary pyramids towering above them. "Soldiers of France, forty centuries look down upon you and contemplate your action this day." The sacred writer in the letter to the Hebrews, marshalling patriarchs, statesmen, kings, prophets, martyrs, and all the faithful, voiced a challenge inspired, and for us today. Wherefore seeing we are compassed about with so great a cloud of witnesses, let us lay aside every weight, and the sin that doth so easily beset us and let us run with patience the race that is set before us.

The ages would warn us to be busy in our best service while the day is ours.

A message from them would be, no doubt, a challenge to life. We are a race growing in knowledge, but no one yet can answer the mystery of life. It is the "physician's great privilege to serve in the preservation and well-being of physical life. When the Great Giver of Life" spoke and taught of life as a ministry unto a divine purpose, surely "He" included a "profession" that faces the ever colossal task of relieving the suffering and ministering to the well-being of life. Shall we not take from this moment then a call back to the bigness of our work, of their work who have ceased their faithful labors to nobly assist life in its efforts to carry on, and to achieve the task of the ages?

And lastly, we might well be assured, their voice to us today would speak a challenge to so live that "death" could claim no victory. From a land where springs eternal day, comes a call on this occasion. To us who still labor in the frailty and dimness of human understanding, "death" brings no defeat to the valerous, true and faithful. The mood of our generation is often that of defeat, disillusionment and a sense of the futility of human efforts. We may rejoice today as we honor our departed fellows true, that our "profession" has ever had its ideals of mercy, and service in the skies of man's loftiest hopes.

He who gives to men of all ages the greatest, most colossal challenge of all reminds us today that we who serve "well" and "faithful," shall surely be counted as those who losing their lives, shall find them.

Our sorrow today is sincere, but it is not the sorrow of despair. We believe that death is not the end of a good man's life, but the beginning of a fuller, richer life—a life that is immortal. Therefore, in closing, I am going to ask the choir to sing those words of Tennyson, "Crossing the Bar." They give beautiful expression to the faith in which our friends have died and the faith by which we live.

Dr. Barlow: What we have had to do and say thus far has had to do with those who have departed. At this time I have a more pleasant duty, one that I wish I could have done for each one of the deceased. Dr. Ellis, will you please come upon the platform. Doctor, stand up. (Dr. E. F. Ellis, of Fayetteville, is upon the platform.)

In our garden are many roses, some are white, some are red;

We want you to have our roses while you are living, not when you are dead.

Why should we wait until your labor is o'er and the earth is piled above your head,

We are going to give you our roses while you are living, not when you are dead.

On behalf of the Committee and the Arkansas Medical Society, I want to present you this beautiful boquet of roses as a token of our appreciation of your long and faithful service in organized medicine. May the coming years bless you and yours and may God ever be with you.

Dr. Ellis: I thank you.

Benediction.

WARMING THE BIRD

(Letter taken by W. E. J. from an Indiana druggist)

"Mr. Druggist, I kno U dont sell what I want but In in bird breeding business I have a roller male he is old Im very desireous of raising some birds from him. Thot if you let me have 5 cts. worth of spanish fly to put 1 drop on his food I could get results as he is very fine bird but don't seem to have no pep."

—Tonic Sedatives—Jour. A. M. A.

THE NURSES' DIAGNOSIS

(Note to a teacher by the school nurse)

Annie will have to be excluded until she has a certificate from the doctor. Her hands show evidence of "Athlete's Foot."

—Tonic Sedatives—Jour. A. M. A.

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Original Articles

THE CANCER PROBLEM*

J. M. MARTIN, M. D., F. A. C. S.
Dallas, Texas

Since accepting an invitation to address your society on this occasion on the cancer problem, I have seriously considered the points to stress most. It will be impossible to cover any considerable part of the cancer problem in the time in which I will be able to speak today. Therefore, I will undertake to bring to your attention, not the newer things in diagnosis or the refinements in technique as applied to the subject of cancer, but instead, I want to try to bring to you a realization of the importance of the cancer situation in this country. Furthermore, I want to try to fix the responsibility for the present cancer situation where it belongs.

You are, of course, aware of the fact that knowledge is the result of education. Education has taught you how to recognize and treat diseases. Unless you have studied the cause or causes of a disease and made yourselves familiar with its nature and the best methods of controlling or curing it, you are not in a position to give worthwhile advice to a patient when consulted regarding that disease.

Today, I am facing an audience made up of the rank and file of the physicians of Arkansas, the most enterprising and intelligent among the medical men of your state; evidence of this fact is your presence here. I am going to talk to you face to face and in terms that we all understand about a disease that is rapidly taking first place as a cause of human death in all of the civilized countries on the globe. That disease is cancer. Do you know that in 1900 the death rate from cancer per 100,000 population in this country occupied sixth place, tuberculosis holding first place? Do you know that in 1929 the death rate in this country between cancer and tuberculosis exchanged places? Today, death from cancer in the United States is occupying second place and that of tuberculosis holds sixth place. Do you know that according to vital statistics the death rate from cancer is increasing two per cent per year? Do you know that it has been estimated that during the past thirty years the death rate from cancer in this country has increased sixty per cent? Do you know that the death rate from cancer in this country is equal to ten per cent of the deaths from all other diseases combined? Do you know that more than 125,000 people died in the United States from cancer during 1931? Whether these figures are absolutely correct we do not know, but we are sure that they are not far from the truth and they are more likely to be too small than too large. It is a sad commentary on the medical profession when we are made to realize that all of this has happened in spite of the fact that medical knowledge has advanced farther during the past thirty years than during any similar period in the history of the world.

Cancer is not a new disease. It is as old as history and much older. It has attracted the interest of the best medical talent of every age and has been treated with every drug and chemical in the pharmacopea. It was the undisputed field of surgery for ages and in late years has been vigorously attacked by the newer methods of radiation. Thousands of cases of cancer have been benefited and many have been cured, but hundreds of thousands of cases are now among us and the future prospects for controlling its ravages are not encouraging.

WHAT IS THE NATURE OF CANCER?

Cancer comes from the Latin word "cancer" meaning a "crab." Not so long ago

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

every newspaper and almanae advertisement of eancer remedies showed a pictnre of a crab with many legs. Cancer was described in these advertisements as a "tumor with many long roots." The public and some doctors took these statements literally. As a result of this method of educating the people, we still hear our patients talking about the roots of cancer.

There are several kinds of cancer differing somewhat in their structures and behavior. Some are external and some are internal. Some grow very slow. Some spread by metastasis to distant tissues while others spread through the tissues by extension from the original growth. Some are rapidly destructive and eause death early while other kinds are less dangerous.

What Is Cancer?

You are frequently asked this question and you are sometimes plagued at not having a ready answer that can be understood by everyone alike. Your patients want to know just what you think about the subject of cancer and you must satisfy them by having at your command a logical answer. If you fail they often go to someone who is less able to advise them than you are, and they may be led to patronize an irregular doctor whose lack of proper diagnosis and treatment may be the eause of an early death. What is cancer? Having been required to answer this question so often and by so many different classes of people, I found it neeessary to formulate a plain, practical definition for cancer that will satisfy everyone, no matter how exacting he may happen to be. "*Cancer is a growth of abnormal tissue, growing without body control and at the expense of the surrounding tissues, with a destruetive tendency that will, if not removed or destroyed, always cause the death of the individual.*"

Diagnosis of Cancer

Precancerous and early caneerous lesions are often very difficult and sometimes impossible to diagnose eorrectly without a biopsy, which is often impossible in out-of-the-way localities. Your patients will frequently consult you regarding small lesions, particularly, superficial lesions. Unless you have given the subject considerable thought, you will many times be at a loss to know what to tell them. Too often you will put them off by saying that the little mole, wart or ulcer is of "no consequence; just let it alone until it begins to cause trouble." This is worse than no advice, and the chances are that the patient will go to someone who will cauterize the lesion superficially or he will provide the patient with a plaster which may, and often does, aggravate the growth and cause it to spread rapidly. The following rule may be applied to all small lesions in the early stage, particularly if they are superficial: *Any lesion, however small and growing in the tissues of an individual in the cancer age, that refuses to respond to simple treatment, is a potential cancer and should be treated as such.* When a patient is suffieiently interested in a condition anywhere in his body and has confidence enough in you to consult you, it is your duty to determine exactly what that condition is. If you do not know and you do not feel qualified to treat him, it is a duty you owe to the patient and to yourself to refer him to someone who is qualified to give him the proper advice and treatment.

Every case of cancer regardless of its age or development is an emergency and demands careful consideration and prompt and efficient treatment. Anything short of this is criminal negligence. The life of the patient often depends on a proper diagnosis and treatment in the early stage, and the physician who fails to see that his patient is properly cared for may be responsible for his death.

Etiology of Cancer?

The specific cause of cancer is unknown. Age and chronic irritation are probably the most aetive known factors in causing tissue to take on an abnormal growth and later a destructive process that tends to destroy the life of the individual.

Age

While cancer may, and often does, occur in the very young, it is manifestly a disease of middle age and advanced life. We have seen cancer in the teens, in the twenties and in the thirties, bnt the greater number of cases develop after forty years of age. When the middle of life has been reached a natural decline begins and the resistance of the tissues is less and disease often finds a foothold and develops with little or no organized op-

position. Since cancer is essentially a disease of old age, we find in this fact an explanation why cancer is on the increase, because people are living longer now in civilized countries than ever before. It has been said that if the human race could be made to live long enough we would all eventually die from cancer.

Chronic Irritation

Probably the most important factor in the process of malignant cell development is irritation. The fact that cancer can be made to develop in perfectly normal tissue by means of chemical or mechanical irritation long continued, is proof sufficient that irritation is an important factor in the production of cancer.

Where Does Cancer Begin?

Cancer seldom, if ever, begins in normal tissue. A careful history of every case will reveal the fact that some type of abnormal growth was present for some time before abnormal cell development began. Cancer cells frequently have their beginning in a wart, mole, cut, bruise, fissure, fever blister, ulcer, burn or old scar tissue, etc. When these abnormal lesions are located on the body where they are frequently injured, their chances of becoming malignant are much greater. The use of tobacco is considered the greatest factor in producing cancer in the mouth and on the lips, particularly on the lower lip. This, however, is not the only cause of cancer in and about the mouth. Snaggy teeth that cut the cheek and tongue, ill-fitting fillings, bridges and plates are frequently sources of enough irritation to cause injury to the gums, tongue and cheek. When this irritation is long continued cancer may be the result. In our experience, more than ninety per cent of malignant lesions in and about the mouth occur in people who use tobacco. The cigarette smoker is most likely to develop cancer on the lower lip and on the inside of the mouth because he usually smokes to excess. Now that women are smoking almost constantly, we may reasonably expect that the number of cases of cancer in and about the mouth will increase during the next decade.

Prevalence of Cancer

Everything that grows and lives is subject to the destructive influence of cancer. Birds, fish, reptiles and all animals are known to have the disease. Cancer is not confined to flesh-bearing creatures. Vegetables, trees and plants are often destroyed by a destructive cell growth that closely simulates cancer in the animal kingdom. The history of cancer reaches back as far as we have any records and was, no doubt, prevalent in prehistoric times. The natives of all countries, no matter how primitive, are victims of cancer. Cancer is, however, more frequent in highly civilized countries, due probably to the fact that people are living much longer under better sanitary conditions. During the early periods of human existence the span of life was from thirty to forty years, therefore, the majority of the people died or were killed in the hunt or in tribal wars before they had reached the period in life where cancer was likely to become a factor.

Sex

More women have cancer than men, the ratio being about eight to twelve. It has been stated that in every group of eight women who reach maturity, one will have cancer, while only one in every twelve men will develop the disease.

Treatment of Cancer

The only successful methods for the treatment of cancer today are surgery, x-rays and radium, in the hands of qualified and skillful physicians. Each patient must be thoroughly examined and the nature and extent of the growth determined. A method of treatment should be selected that, in the judgment of the physician in charge, is best calculated to remove or destroy the cancer without endangering the life of the individual. In desperate cases, heroic measures are often justifiable, and some degree of risk must be assumed by both the patient and the physician. In most cases of cancer, that method of treatment should be selected which compares favorably with other successful methods, causes the least amount of physical suffering, the least possible mortality, and leaves as a result of the treatment the least amount of scar and deformity.

Radiotherapy

Slowly but surely radiotherapy is taking first place in the successful treatment of carcinoma. It is not an infallible cure, and many cases of cancer will continue to die while

under the eare of physicians who are expert in the use of radiation. If any eonsiderable degree of sueeess is to be attained by the radiotherapist in the treatment of eaneer, he must, of necessity, have the proper qualifieations and experience, ample equipment of the best possible make, and all eases must be properly diagnosed and treated early. It is not enough to simply say that a case of eancer is being treated with radium or x-rays, and take it for granted that the cancer will be destroyed. The teehnique employed in radiation therapy is of the greatest possible importance. Many eases of eancer are being treated with x-rays for long periods of time, with a dose that will not disturb the hair around the growth.

Superficial Technique

It has been experimentally demonstrated that it requires at least seven erythema doses of radiation to destroy squamous cell cancer. This amount of radiation produees eonsiderable reaction whieh usually takes from four to six weeks to heal. To the novice in radiation therapy, this stage in the treatment is sometimes alarming. When the doctor beeomes alarmed the patient is likely to beeome scared and may change doctors with an unhappy result. The older method of factor determination in dose estimation was reasonably reliable. However, we now have a more dependable method in which to estimate an x-ray dose. Instruments that measure the intensity of x-rays, at the point where they eontaet the tissues, have been brought to a high point of development and are now reasonably dependable. The unit value of x-rays delivered by a erooks tube has been universally adopted as the *roentgen* and is abbreviated by the lower case letter r. The development of these refinements in x-ray dose estimation is a forward step toward standardization of the dose of x-rays to be used in the several stages of cancer therapy. Both the superficial and deep dose must be aecurately estimated and earefully administered if reliable eurative results are to be regularly expeeted. I refrain from diseussing the various techniques for the administration of x-ray therapy, because they are too often misunderstood and may lead to disastrous results. Before a standard teehnique ean be duplieated, the x-ray maehine must be of standard construetion and earefully calibrated by one who is competent to do this kind of work. The physician who eleets to do radiation therapy should make a rather thorough study of eleetro-physics. By familiarizing himself with the rudiments of electricity many of the diffieult problems that will constantly confront him, as his work develops, will be made mueh simpler and easier.

Intraoral Radiation Therapy

Except as a supplement to the use of radium, x-ray therapy inside of the mouth is not to be eonsidered. Early radiation technique on the inside of the mouth eonsisted in the use of radium element in capsules applied against the lesions with indifferent filters and the interstitial use of steel needles containing as much as twelve and a half milligrams of radium element. This teehnique often caused a great deal of tissue necrosis with pain and discomfort. Healing was slow and the consequent fibrosis, sear and deformity were distressing. Later radium eminations in gold seeds seemed to overcome this disadvantage, but it was soon found that even though the seeds eould be obtained in distant locations, the filtration was not sufficient to choke out all of the bata rays and a eertain amount of neerosis and pain were still an element of radium therapy when gold seeds were used. Regaud of Paris, direetor of the Curie Institute, had long advocated the interstitial use of small amounts of radium element filtered with a sufficient amount of platinum to absorb or obstruet all but the pure gamma rays. Cade of London later modified Regaud's teehnique, in which he advoeated platinum needles eontaining 0.6 mg. of radium element to the centimeter length of the needle. The walls of these needles were to be not less than 0.5 mm. thick. It has been determined that radium platinum needles of this character when inserted into the tissues will destroy a eubie centimeter of squamous eell cancer in seven days. The needles are to be inserted around the growth in normal tissue. They are to be placed one eentimeter apart and made to pass well under the growth. The needles are pushed in beneath the skin and firmly anehored with a deep stiteh in the normal tissues. A radiograph should be made to determine the positions of the needles. Should they not be in order, one or more of the needles may be removed and reinserted.

Before insertion the needles are threaded on to a double strand of strong dental floss. After the needles have been anchored, one strand of the thread is cut away and the other used to protect the needle from being lost. All threads attached to the needles are twisted together, threaded through the eye of a small linen tag on which is printed in red letters, RADIUM, DO NOT REMOVE OR THROW AWAY. Should one of the radium needles slough out as is sometimes the case, it must be reinserted. The pain and discomfort from the presence of ten to fifteen of these needles in the tongue or other parts of the mouth are surprisingly small. There is no sloughing, no necrosis of the soft tissues or in the bone and the treatment is followed by the least possible amount of scar and fibrosis. Eight of these platinum radium needles in the tongue for eight days completely destroyed a squamous cell cancer. In two months' time the tongue had assumed its normal shape, was smooth, soft, and its function was scarcely interfered with. In squamous cell cancer along the alveolar margins, the platinum radium needles were placed parallel with and against the bone where they were allowed to remain for several days. There was no radium osteomyelitis or other untoward effects so common when the steel needles were used. In the treatment of large intraoral malignant lesion, the interstitial use of the radium platinum needles may be supplemented by the superficial use of highly filtered radium packs, using from fifty to one hundred milligrams of radium element. The radium packs are held in position by means of lead strips after the method of Grier and Pfahler. When thought necessary highly filtered, high voltage x-rays may be applied over the area covered by the radium packs. The amount of combined radium and x-rays that the tissues will stand without injury is truly remarkable. The secret of this is HIGH FILTRATION.

Reports from the Memorial Hospital, New York, bear out our own experience with regard to the fact that carcinoma on the lower lip and on the inside of the mouth seldom metastasize early. Extensive block dissections in these cases, when properly treated by means of radiation, is unnecessary. Deep prophylactic radiation over the adjacent lymph nodes is always an essential part of the technique in each case, even though the glands are not indurated.

These cases are kept in the hospital during the time the radium needles are in use. They should be seen one or more times each day. The mouth must be kept clean as possible by frequently washing it out with a mild alkaline solution. The patient must be made comfortable by giving him as much consideration as you would your most complicated surgical case. The results from the newer method of radiation technique have been so universally good, even in well advanced cases of cancer in the mouth, that we have been encouraged to make these reports and speak with confidence for its future.

Conclusions

Probably no less than ninety per cent of the responsibility for materially lowering the present death rate from cancer in this country rests upon the shoulders of the medical profession. Tuberculosis has been almost conquered, why not cancer? If we are to lower the terrible death toll that cancer is now taking from among us, it can only be accomplished through a determined concerted effort on the part of the physicians of the United States. Radiation therapy is now doing its part; it can do much more when wisely employed in earlier cases. It is not going too far when we make the statement that one hundred per cent of early cases of cancer of the skin can be cured by radiation. While intraoral cancer is a more difficult problem, it is now yielding to a combined use of interstitial and external radiation in a manner that bids fair to rival the good results of radiation in the treatment of superficial malignant lesions. Our duty to those who are afflicted with cancer is plain. Are we equal to the responsibility?

"Neither a borrower nor a lender be;
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.
This above all: to thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man."

—*Shakespeare.*

SYPHILITIC BURSOPATHY OF VERNEUIL*

D. W. Goldstein, *M. D.*, Fort Smith, Ark.

The literature on Syphilitic Bursopathy is meagre. Verneuil first described this condition in 1867-73, reporting four cases which involved the extensor tendons of the hand distal to the annular ligaments. In 1876 the Elder Keyes collected fourteen cases, which included one of his own, and at this time called attention to the scarcity of literature on the subject. Churchman (1) wrote an exhaustive article, reviewing the whole subject in 1909. He reviewed twenty-seven cases which included one on his own. In 1924 Lane (2) collected five additional cases and added two of his own, bringing the report of thirty-four up to this time. A questionable case by Cabot (3) and an unpublished case of Keidel's and Moore's, a plate which is in Stokes (4) Modern Clinical Syphilology, brought the total to thirty-six. Recently Vaughn C. Garner and Arthur G. Schoch (5) reported two cases in the October issue of Archives of Dermatology and Syphilology, with the case here reported, brings the number of reported cases to thirty-nine. If the condition had been called to the attention of the profession, I am sure more cases would have been recognized.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

Clinical Features

Syphilitic Bursitis usually occurs in the pre-patellar and sub-patellar bursa, the bursa of the elbow and wrist are the next bursa affected. In Churchman's (1) review the majority of cases have been in women. He also states trauma may or may not play a part in the etiology. An individual may overlook a slight trauma. It is certain that it occurs in bursa that are more subject to trauma. It should be remembered that this condition is confined to the bursa with no diseased condition of the joint. Tenderness and discoloration are also shown in a major-

LUETIC BURSITIS (Before Treatment)

ity of cases. He also found that in the cases reported it was not necessary for the lesions to be symmetrical, though they often are. Pain is not severe. There is a soreness or uncomfortable feeling. Wassermann is positive, and often a history of syphilis or associated syphilitic lesions are found. There is a prompt response to anti-syphilitic therapy.

Report of Case

W. S., age 50, machinist, was first seen on November 10, 1931. He works on his knees about three hours every day.

Past history: Had sore on penis in 1923; no secondaries noticed. Was told by physician that he had syphilis. Had three doses of neoarsphenamin. No treatment since. Health has been good until about six months ago, when he began to tire easily, also lost weight.

Present illness: Two months ago notieed a red area on right knee. One week later noticed a similar condition on left knee. Had no pain, but complained of some soreness. Two weeks ago struck right knee against a table. Five days after this noticed a discharge of pus and blood from previous soft spot on right knee, with formation of present ulcer. Lesion on left knee remained swollen, but did not ulcerate.

General examination negative. There were no scars on body. Ulcer on right knee over patella size 1.7 cm. Dirty, greyish slough with seropurulent discharge. There was a depth of about .7 cm. Below this ulcer was a slight enlargement which was soft, containing fluid, but not under pressure. There was a hyperpigmentation with induration around the ulcer. Left knee showed pigmentation with slight swelling over patella. This also contained fluid.

Serology: Kahn and Kolmer were strongly positive.

X-ray report: "Picture of both knees shows no pathology of joint, nor bone pathology in patella, and only slight syphilitic osteitis of tibia."

Treatment: Insoluble bismuth (metallic) was given, also sodium iodide by mouth. After the first three injections of bismuth, .025

LUETIC BURSITIS (After Treatment)

INJECTION OF IODIZED OIL (Left Knee)

INJECTION OF IODIZED OIL (Right Knee)

grm., and three weeks of sodium iodide up to 4 grms. per day, the ulcer showed definite improvement and was entirely healed after eight weeks of this treatment. The ulcer on right knee healed smoothly. The doughy swelling on left knee healed, leaving a dimpling of the skin, showing attachment of the skin to the underlying tissue. It is peculiar that the ulcerated area healed without this dimpling and the other bursa healed with the skin attached, causing the dimpling.

As further proof that this was a diseased process of the bursa, 2 cc iodized oil was injected into the left bursa after healing had taken place. The injection was given through the skin which was attached, and this showed there had been a diseased process of the bursa. An attempt was also made to inject iodized oil into the right bursa through the scar. About 1 cc could only be injected. Results show only part of bursa remained and an infiltration of iodized oil into tissue. This was probably due to greater destruction of the bursa from the ulcerative process.

There has been very little work done on injection of bursa. Doctor Willis Campbell (6) states in a personal communication that it is almost impossible to inject a normal bursa from without, and that there is no doubt that this is a leutic bursitis.

Conclusion

1. An additional case of syphilitic bursopathy of Verneuil is reported.
2. There was a prompt response to antisyphilitic treatment.
3. A plea for more notice to be given this condition in the literature.
4. Iodized oil injection of bursa for aid in diagnosis.

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WILL H. MOCK, M. D., F. A. C. S.
Prairie Grove
President, Arkansas Medical Society, 1932-1933

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

OUR NEW PRESIDENT

Dr. Will Hugh Mock, the new president of the Arkansas Medical Society, is a man of unusual talent along varied lines, although he takes most pride in the title "Country Doctor."

He has kept in close touch with the trend of modern thought in medicine and surgery, and has engaged in extensive post-graduate work, but at the same time he has found opportunity to interest himself in hobbies and business interests outside of his profession. One of his hobbies has been the reclaiming, modernizing and beautifying of run-down, neglected and unattractive city lots, farms and buildings, and this enterprise has proved very profitable.

Dr. Mock was born at Prairie Grove, in the heart of the Ozarks, of solid Southern stock. His parents and grandparents migrated from South Carolina and Tennessee to northwest Arkansas when wilderness was King. These dauntless pioneers joined their neighbors in establishing schools and churches and converting the primeval woodlands into a civilized land of beauty and charm. The wilderness of 1849 now is a progressive, prosperous scenic area.

Dr. Mock's fine estate, with its beautiful valleys and wooded hills, is one of the landmarks of this early civilization. He maintains his office and his small modern hospital at Prairie Grove, but he is a member of the staff of the City Hospital at Fayetteville, where most of his major surgery is undertaken.

Only a man of great energy and enthusiasm could maintain his activity in and enjoyment of his profession, and at the same time show enthusiasm for other lines of endeavor. He has erected fine buildings in his town and community and they were judicious investments. He has been actively interested in establishing and improving drug stores, and he maintains an extensive interest in the drug business.

But, that is not all. Dr. Mock equipped and furnished a Legion hall, which the veterans use without cost, and he owns and maintains a beautiful park for the use of the community.

Dr. Mock is not married. He is a Methodist, a loyal Democrat, and belongs to several fraternal orders, and also is a member of several boards of directors. Only a very energetic man could keep informed on all community matters that interest him.

He has practiced medicine continuously in his own community except during a period of two years, when he was chief surgeon of the Kenefeck Mammond Company and the O. and C. C. railroad.

Dr. Mock is an ex-president of the Washington County Medical Society and of the Tenth Councilor District Medical Society. He is vice-president of the Frisco Railway Surgeons' Association, a member of the medical examining board of the Arkansas Medical Society, a graduate of pharmacy, and a Fellow of the American College of Surgery.

Abstract

SOME PRESSING PROBLEMS IN ALLERGY

J. H. Black, Dallas, Texas (Journal A. M. A., July 2, 1932), points out that in spite of the fact that the treatment of allergic conditions is fairly satisfactory, the fact remains that treatment is largely empiric. Advantage is taken of the fact that allergic persons frequently show skin reactions to their respective allergens to determine the specific allergenic substances, but there are many irregularities found in skin reactivity and the reasons for them are imperfectly understood. Treatment with the substance to which the patient is sensitive frequently produces good results, but there is still much room for argument as to the mechanism underlying the response to treatment. Some of the problems found in an attempt to explain these conditions are due to deficiencies in the knowledge of immunology in general, but some of them may be solved by careful, concerted study by the clinical investigator and the laboratory worker. In this field where animal experimentation may fail to reproduce human reactions, accurate observation of carefully controlled patients may provide the material for the solution of some vexing problems. Of these problems, the author discusses the following: (1) Basis for hereditary influence; (2) relationship of endocrine organs and involuntary nervous system; (3) relation of reagin to clinical hypersensitiveness; (4) reactivity of the shock organ; (5) local immunity or sensitization; (6) rate of absorption of allergen, and (7) sensitization to nonantigenic substances. These points are raised, not with the intention of disparaging the work which has been done, but to call attention again to the fact that there is a great amount to be done if work in allergy is to be placed on a scientific basis, and to remind the clinician as well as the laboratory worker that careful painstaking observation may assist in the solution of some of these perplexing problems.

Personal and News Items

Dr. and Mrs. E. W. Blackburn, Ozark, visited in Little Rock recently.

Dr. M. D. Duncan of Mountain Pine has moved to Murfreesboro, and Dr. L. N. Bollmeier of Mountain Pine has moved to Hot Springs.

Dr. John M. Smith, son of Dr. and Mrs. W. F. Smith, left recently for Temple, Texas, where he will serve as interne in Scott Heights Hospital.

The fifth meeting of the Fort Smith Clinical Society met June 28, 1932. This organization is sponsored by the Clinical Staffs of Saint John's, Sparks Memorial and Saint Edward's Mercy Hospitals. At this session, which is reported to be one of the best ever held, the attendance was over one hundred.

The Aid Association of the Philadelphia County Medical Society is establishing a special perpetual fund in honor of Dr. John B. Deaver, surgeon, teacher, humanitarian, only the income of which will be used to afford aid to needy physicians and their families. All friends of Dr. Deaver are invited to participate. Any amount given will help in creating a fund which will be a fitting Perpetual Memorial.

All money received will be placed in the Dr. John B. Deaver Perpetual Memorial Fund. Checks should be drawn to the order of the Aid Association of the Philadelphia County Medical Society and sent to: Dr. Francis Heed Adler, Secretary, 313 South Seventeenth Street, Philadelphia, Pa.

The Committee on Medical Legislation has received letters from a number of doctors from over the state asking whom we, as a group, are supporting as candidates for the various state offices. Our answer is that we cannot advise you to vote for any particular individual for any particular office. That is a matter for each of us to decide.

However, if a candidate's record shows that he has been consistently against the policies and recommendations of Organized Medicine, this committee will not hesitate to so inform the doctors of his district or the state.

It is not the policy of the Arkansas Medical Society to dictate to its members as to whom they should vote for. If our organization were to adopt such a policy it could do nothing but create strife within our ranks.

This committee will gladly furnish information concerning any candidate upon the request of any members of the Arkansas Medical Society. We advise you to particularly look into the records of candidates for the next General Assembly.

VAL PARMLEY, *Chairman.*

Obituary

ATKINSON, HENRY HARRISON—Dr. H. H. Atkinson of Fordyce, aged 52, died June 6, 1932.

Dr. Atkinson, son of the late Mr. and Mrs. Ed Atkinson, was born in Fordyce, May 8, 1880. He attended the Clary Training School at Fordyce and received his medical education at the Memphis Medical College. After graduation he returned to Fordyce and began the practice of medicine, being connected with the Fordyce Lumber Company. He later became the partner of the late Dr. F. E. Harrison, continuing until the death of Dr. Harrison five years ago.

Dr. Atkinson was active in civic affairs of his community; a member of the Arkansas Medical Society and the Dallas County Medical Society. At the time of his death, he had served as president of the latter organization for the past six years.

He is survived by his widow and eight children, also by two brothers and one sister.

FREEMAN, ISAAC N.—Dr. I. N. Freeman of Hot Springs, aged 65, died June 20, 1932. Aside from his large practice, he devoted much time to the development of property in South Hot Springs, and was known as one of the civic leaders in that section.

Dr. Freeman is survived by his wife, three sons, Lonnie of Hughes, Irvin of Mount Ida and L. V. of Hot Springs; two daughters, Mrs. H. W. Shepard and Mrs. Robert Higgins, both of Hot Springs, and a brother, Dr. W. D. Freeman of Mount Ida.

SCRUGGS, GEORGE W.—Dr. George W. Scruggs, aged 63, of Humnoke, Lonoke County, died June 21, 1932.

He is survived by his wife, three sons, Tom C. Scruggs of Mobile, Alabama, Eris P. Scruggs of Humnoke and George D. Scruggs of New Orleans; two daughters, Mrs. Ora Goforth of Caryville, Florida, and Mrs. Vivian Miller of Chicago.

TOWNSEND, NOBLE ROBERT — Dr. N. R. Townsend of Arkadelphia, aged 65, died June 24, 1932. He was one of the most prominent physicians of his county, and had been identified with public enterprises since moving to Arkadelphia in 1903.

With his son, Dr. Chas. K. Townsend, he operated one of south Arkansas' best known hospitals. He was a minister; member of the board of trustees of Ouachita College; a member of the executive board of the Arkansas Baptist state convention and moderator of the Red River Association. He had been college physician at Ouachita for many years.

Surviving are his widow; two sons, Dr. Charles K. Townsend of Arkadelphia and Dr. Ernest Townsend of Los Angeles, California; two brothers, J. H. Townsend of Black Rock and C. C. Townsend of Walnut Ridge.

SULLIVAN, EVERETT L.—Dr. E. L. Sullivan of Poughkeepsie died June 11, 1932. Aged 52.

Dr. Sullivan was presiding at a meeting of the county Democratic Central Committee when he was stricken with apoplexy and died instantly.

He is survived by his wife, and two daughters, the Misses Maurine and Helen Sullivan of Poughkeepsie; two brothers, John of Grange and C. N. Sullivan of West Plains, Missouri.

RESOLUTION

Whereas, God in His infinite wisdom has taken from our midst our colleague and fellow member of the Garland County Hot Springs Medical Society, Dr. C. Travis Drennen; and

Whereas, Dr. Drennen was dear to us because of his genial nature, and his years of service to us and to this community; and

Whereas, Dr. Drennen was not only an outstanding physician in the community the state, and the South, but unselfishly devoted himself to medical and allied problems. His interest in nursing and hospitals was great, he gave service more than a quarter of a century to St. Joseph's Infirmary, serving for years as president of the board of St. Joseph's, and wisely and honorably guiding the hospital in its formative years until the new structure was completed. He saw the need for trained nurses; to fill this need, he was largely instrumental in the formation of the Training School at St. Joseph's, and each year with grace and charm and pleasing address he delivered to its graduates their diplomas with his best wishes for their future success and happiness. Those of the society fortunate enough to recall these orations will remember them with pleasure; and

Whereas, Dr. Drennen's activities were not confined solely to this society, but in every civic cause he was active. The Lions Club honored him with its presidency; in all plans for the beautification of our city he took an active and leading part and did much to give an impetus to better homes and gardens, and to doing away with unsightly streets. It must be remembered, too, that Dr. Drennen strove for years for improvement in the manner in which the practice of medicine is regulated on the Reservation; in obtaining new laws regulating the practice of medicine, and in waging relentless war on doctor drumming. Finally, and greatly to Dr. Drennen's credit, is the fact that he was heart and soul in every moral fight waged in this community. No one need ask where Dr. Drennen stood on any moral question. Like Luther of old he said, "Here I stand, I can do no other."

Therefore, Be It Resolved, That the Garland County Hot Springs Medical Society in session assembled express to Mrs. Drennen our sympathy at the loss of Dr. Drennen, and our appreciation for the arduous and honorable service he has given us; and

Be it also resolved, that a copy of this resolution be spread on the minutes of the society and that a copy be sent to Mrs. Drennen and to members of Dr. Drennen's family, and to the press.

James H. Chestnutt,
Ossian H. King,
Committee.

RESOLUTION

On the 17th day of May, 1932, the City of Jonesboro was shocked at the untimely death of one of her foremost citizens, Doctor Thaddius Cothern. And we, the Craighead-Poinsett County Medical Society, in session assembled, do hereby authorize, resolve and offer the following resolution.

Doctor Thaddius Cothern was one of our most valuable members. His counsel, activities and courageous fight for organized medicine is an irreparable loss to our Society and to the Community which he served.

BE IT FURTHER RESOLVED That in the passing of Doctor Thaddius Cothern we have lost one of our most efficient and loyal members; the city of Jonesboro one of its most valuable and unselfish citizens; the family a loving husband and father. To them we extend our heartfelt sympathy.

BE IT FURTHER RESOLVED, That this resolution be entered upon the permanent record of the Society and that the Secretary transmit copy thereof to the family; also, that copy be sent to the Journal of the Arkansas State Society and the local papers for publication.

R. W. Ratliff,
W. W. Jackson,
J. H. McCurry,
Committee.

"I trust in Nature for the stable laws
Of beauty and utility. Spring shall plant
And Autumn garner to the end of time.
I trust in God—the right shall be the right
And other than the wrong, while he endures.
I trust in my own soul, that can perceive
The outward and the inward—Nature's good
And God's."

—*Browning.*

County Societies

ASHLEY COUNTY

(Reported by A. M. Gibbs)

The Ashley County Medical Society met June 9, 1932, for their annual fish dinner and scientific program, at Wilmot. Societies from the following counties participated in the meeting: Ashley, Chicot, Desha, Drew, and Morehouse Parish, Louisiana.

Present: S. B. Hinkle and M. C. Hawkins, Jr., Little Rock; Leslie A. Purifoy, El Dorado; J. Q. Graves, J. G. Smellings and B. M. McKion, Monroe, Louisiana; W. B. Grayson, J. C. Miller, H. T. Smith, McGehee; J. H. Burge, M. K. Botaff and Edward P. McGehee, Lake Village; J. S. Wilson, G. C. DeBolt, J. P. Price, B. P. Kimbro and S. H. Leslie, Montieello; S. J. Barlow and J. A. Thompson, Dermott; N. P. Lyle, R. B. Leavel, J. N. Jones, W. V. Garnier, W. W. Poimboeuf, O. M. Paterson, Bastrop, Louisiana; T. Huekelby, W. S. Mott, M. W. Williams and E. M. Clark, Mer Rouge, Louisiana; W. W. Easterling and S. W. Douglas, Eudora; M. C. Hawkins and J. D. Nichols, Parkdale; W. S. Norman, L. C. Barnes, J. W. Simpson, D. L. Mask and A. M. Gibbs, Hamburg; H. E. Cochran, Portland; W. E. Jones, M. C. Crandall and E. O. McDermott, Wilmot.

The scientific program was presented by Drs. S. B. Hinkle and M. C. Hawkins, Jr., Little Rock; Dr. J. Q. Graves, Monroe, Louisiana, and Dr. L. Huekelby of Mer Rouge, Louisiana.

DESHA COUNTY

(Reported by H. T. Smith)

The Desha County Medical Society met June 27 at McGehee. Following the regular order of business, the activities of the local Health Unit were discussed, and the unit was severely criticized for not complying with the agreement reached by the State Society.

The following resolution was adopted:

Whereas, the Desha County Health Unit has violated and is daily violating a certain agreement made and entered into between the State Board of Health and the Arkansas Medical Society, which said agreement is particularly set out in a resolution adopted by the House of Delegates of the Arkansas Medical Society, Little Rock, Arkansas, Thursday afternoon, April 7, 1932; and,

Whereas, said action on the part of the said Health Unit is unfair to the physicians of Desha County, Arkansas, and is in direct violation of the agreement aforesaid.

Therefore, be it resolved, by the Desha County Medical Society, in session at McGehee, Arkansas, on this 27th day of June, 1932, that the Council of the Arkansas Medical Society be, and it is hereby, urged to enforce said above mentioned agreement rigidly, with particular and especial reference to the section one and section four, and that upon the failure of compliance with said agreement that the Health Unit be immediately withdraw from Desha County, to the end that the Desha County Medical Society may properly supervise the work of the said Health Unit in accordance with the agreement aforesaid.

Done at McGehee, Arkansas, on this 27th day of June, 1932.

VERNON MACCAMMON,
President.

H. T. SMITH,
Secretary.

LAWRENCE AND RANDOLPH COUNTIES

(Reported by H. R. McCarroll, Secretary of Lawrence County Medical Society)

The Lawrence and Randolph County Medical Societies met in regular monthly session at Current River Beach, Tuesday afternoon, July 12, 1932.

The following doctors and visitors were present: Dr. and Mrs. J. C. Hughes, Dr. H. A. Stroud and sons, Dr. and Mrs. W. J. Robinson, Drs. J. Lee Howell and Roe of Poplar Bluff, Missouri; Dr. and Mrs. T. C. Neece, Dr. and Mrs. J. R. Loftis, Dr. and Mrs. J. W. Ryburn and daughter, Dr. T. Z. Johnson, Dr. J. E. Hughes, Dr. J. W. Brown, Dr. H. R. McCarroll and Dr. Harroll McCarroll.

The scientific program consisted of two most timely papers as follows: "Typhoid Fever," by Dr. Harroll McCarroll, and "Diabetes," by Dr. J. C. Hughes.

Drs. J. E. Hardeway of Lynn and E. L. Gibson of Alicia were admitted to membership.

Following adjournment of the Society, many enjoyed a swim in Currant River before dinner was served.

WASHINGTON COUNTY

(Reported by Fount Richardson, Sec.)

The Washington County Medical Society met in regular session June 7, 1932, being called to order by the president, J. W. Walker. Minutes of the previous meeting were read and approved.

Present: Walker, Wentz, Sisco, P. L. Hathcock, A. Hathcock, Mock, Wallace, Fowler, Brand and Richardson. Miss Octavia Lowry was a guest at the meeting.

Dr. W. A. Fowler's application for membership was submitted to the society and he was accepted on transfer from the Oklahoma County and the Oklahoma State Societies, by a unanimous vote.

Dr. Fowler read a paper on Pulmonary Tuberculosis, dwelling chiefly on diagnosis and treatment. This excellent paper elicited much discussion. The discussion was opened by Dr. H. D. Wood.

Dr. Will H. Mock made a report of the special committee appointed at the last meeting, stating that the committee commended the resolution on Public Health matters adopted by the House of Delegates of the Arkansas Medical Society, April 7, 1932. Further, they recommend that a committee of three be appointed to control and assist in county health work that is being done by county officials, Dr. Sisco and Miss Lowry. The report was adopted and the chair appointed Dr. McCormick of Prairie Grove, Dr. H. B. Wentz of Elkins and Dr. P. L. Hathcock of Fayetteville as the committee.

A report of the secretary stated that the local theater manager would exhibit any films for the medical profession or the public which would be brought in and sanctioned by the county medical society.

The topic for discussion at the next meeting will be "What is our Society doing to safeguard the health of our county?"

Book Reviews

A Medical Formulary. Containing over Two Thousand Prescriptions with Indications for Their Use. By E. Quin Thornton, M. D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. Thirteenth edition, thoroughly revised. Published 1932. Pocket size, 352 pages, limp binding. Price, $2.50 net. Published by Lea & Febiger, Washington Square, Philadelphia.

This work has long justified its usefulness in a broad and legitimate field. It serves as a check to the best informed physician lest he overlook an appropriate drug, and it enables the young doctor the better to perform his duty to his patient and to himself. It is not intended as a substitute for individual thought. The practitioner's dagnosis must give him the character, quantity, combination, dose and method of administering a remedy. It will, however, discourage the use of proprietary, secret and patented preparations by members of the profession.

The Story of Medicine. By Victor Robinson, M. D., Professor of History of Medicine, Temple University School of Medicine, Philadelphia. Published by Albert & Charles Boni, New York.

The author of this book has been referred to by Professor Sudhoff of Leipzig as a "keen reader of human nature, a writer of vivid description and a brilliant stylist whose works are of permanent value to culture." The twelve chapters include: Medicine of the Stone Age, Medicine in Ancient Egypt, Medicine in Ancient Greece, Greek Medicine in Alexandria, Greek Medicine in Rome, Arabian Medicine in the Middle Ages, European Medicine in the Middle Ages, Medicine in the Renaissance, Medicine in the Seventeenth Century, Medicine in the Eighteenth Century, Modernization of Medicine, and Medicine in America.

New and Nonofficial Remedies, 1932, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1932. Cloth. Price, postpaid, $1.50. Pp., 492. lvi. Chicago: American Medical Association.

The recognition of a preparation for inclusion in this book singles it out from the host of new products of the pharmaceutical manufacturers as being a worthwhile addition to the existing armamentarium of the practicing physician. To be thus distinguished it must be shown, under the impartial scrutiny of the carefully chosen group which is the Council on Pharmacy and Chemistry, that it has acseptable evidence of therapeutic usefulness and that it is marketed in accordance with the honesty and straightforwardness envisaged by the excellent Rules which have been the outgrowth of the Council's quarter century experience in appraising the merits of new drugs.

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Original Articles

PRESIDENT'S ADDRESS BEFORE THE AUXILIARY OF THE ARKANSAS MEDICAL SOCIETY, APRIL 6, 1932

D. A. RHINEHART, M. D., Little Rock

Madam President, Members of the Auxiliary, and Guests:

To one accustomed only to addressing men, the preparation of an address to women presents many difficulties. Two plans seem open to him. He may use his time in saying the usual nice things about his women associates, or he may, if he has one, use it in delivering a more serious message. Perhaps the first of these would be easier, for think of the poetry, the quotations from Shakespeare, Solomon, and other experts on the subject that he could marshal to his aid. Lest I be considered unfeeling in this regard, let us assume that all such complimentary and honeyed words have been said, and proceed to a discussion of some of the things that may be done by wives of physicians in an auxiliary capacity to their husbands.

You are all familiar with the purposes of the Woman's Auxiliaries to the various medical societies and associations. These are set forth in the constitutions of the different organizations. I have read four of them, one national, one sectional, one state, and one county, and they are identical in this respect. These objects and aims indicate the purposes of these groups to be sponsored as organized and functioning bodies. I propose to speak to you briefly about some of the things that you may do as individuals to further your husbands' interests as physicians.

I am glad that many of you heard my address yesterday in the general session. I should like to have you ponder well the remarks that were made then, particularly about the mental attitude that is apt to result from too long isolation of a practicing physician. I believe that the two chief causes for this attitude are lack of acquaintanceship and the tendency for a physician to believe everything that is told him, especially about some other doctor. You heard me say also that the best corrective for this attitude is a medical society.

These are the ways in which I think you can help in this situation. You can encourage your husband in attending the meetings of the different medical societies to which he belongs; not that I think he needs encouragement in staying away from home, for probably there is no class of men that is less under foot around the house than physicians, but because he will learn something at the society meeting and he will become friends with the other physicians in the community in which you live. Considering similar communities, I am sure that, on the average, the quality of medical service is better in those that have active medical societies than in those that do not. I purposely failed to mention this yesterday, for someone would have reported later that I said a man was not a good physician unless he attended medical society meetings. This, then, is one way you can help. If Mary with her Latin and John with his algebra perhaps need the help of their father, encourage him to remain at home some other time than the meeting night of his medical society. If not already, it will not be long until your organization will meet the same time; then you and he can make a night of it, he at his meeting and you at yours.

I said yesterday that a physician liked to believe uncomplimentary and unkind things about his competitors. I have been unable to find any logical reason for this, but, nevertheless, we know it is true. If he hears something said about some other doctor, he is too prone to place the most unfavorable interpretation on it. He likes to hear of the mistakes of some other doctor and is quite apt to rejoice when told of them.

Tales carried by patients are his chief source of information. While experience has taught him not to believe everything his patients tell him about themselves, yet he likes to believe those things they tell him about other doctors. Why he should be so doubting in the one and so gullible in the other is more than I can comprehend.

You can be of help to your husband in getting the correct mental slant on his competitors. You can adroitly help him put the most kindly interpretation on events and occurrences of which he has heard; you can remind him that the layman's ideas about medical affairs are apt to be quite nebulous and more often incorrect than correct, and to prove it, show him some of the mistakes made by intelligent and educated newspaper men as reported in "Tonics and Sedatives" in the back of the Journal of the American Medical Association. When mistakes are mentioned, you can gently remind him that only he "that is without sin" may "cast the first stone."

One of the gravest mistakes that you can make in your Auxiliary work is to permit your opinion of some doctor's wife to be influenced by what your husband may think of her's. You should carefully guard against such, and base your opinions entirely on the true worth of the other woman as an individual. Should you find her worthy, your friendship with her may be a means of ending the antipathies your husbands have for each other.

You can also help liberalize your husband's ideas on a great many subjects. You must know by this time that some of his ideas are rather archaic. Too often he is unable to see through some immediate disadvantage to a future for greater benefit. For instance, take such a simple thing as the examination of children of pre-school age for the presence of remedial physical defects. Many of you have met with the opposition of physicians to this work, whether sponsored by the Auxiliary, the health authorities, or the Parent-Teachers Associations. Some physicians have refused or protested when asked to devote some time to the examination of children in the pre-school round-ups. They fail to see that the defects discovered will need remedying by some physician, thus aiding the health of the children, and, incidentally, improving the physician's business.

Again, consider the matter of public health instruction, whether in the schools or elsewhere. The object of such instruction is to teach people how to keep themselves well. Physicians are often found who oppose such education of the public, for they fail to see that personal preventive medicine may be just as remunerative and a great deal more pleasant than curative medicine. I do not think there is anyone who doubts that it would be more pleasant to deal with well patients than it would with sick ones. You, therefore, not restrained by the old conventions that affect your husband, may help by showing him wherein something that will happen in the future will more than offset something to which he objects in the present.

Perhaps the most important function of all that you may perform for your husbands is to represent them and the medical profession at times and places where they cannot be present themselves. It seems to be quite proper just now to disparage the medical profession and physicians on all possible occasions. Most of this has its origin from the patent medicine vendors, the cults, and the quacks. One of these can make more noise than ten thousand legitimate practitioners. Unthinking and ignorant people magnify and disseminate the propaganda they hear and ethical practitioners lose face thereby.

In recent years even otherwise respectable popular magazines have published numerous articles not complimentary to medical men. Most of these are written by laymen who add half-truths and untruths to make them sensational and hence more readable. Just now, the cost of medical care and the poor distribution of medical service seem to be the chief topics.

It may be assumed that the physicians themselves are amply able to counteract that part of this unfavorable notice they meet, but in the course of the day's activities, it is quite probable that physicians' wives have more occasions than they. To deliver the retort courteous so that it may be effective, you must be informed on these subjects. This information you will obtain from "Hygeia," from the "Propaganda for Reform" department of the Journal of the American Medical Association, from the Bulletin of the American Medical Association, and from the various special publications of the Association. These

latter can either be obtained gratis or for a very nominal sum.

Having become informed, it is then necessary for you to make associations such that you will be able to disseminate this information. As set forth in the purposes of the Auxiliaries, this can be done through the various woman's organizations, particularly through the Parent-Teacher groups, for a more serious purpose will be found there than elsewhere.

One of the worthy objects that has been sponsored by your organizations is the circulation of "Hygeia." I wonder if you fully grasp why this has been done. In a recent article in the news magazine "Time," reporting the results of the libel suit of the quack, Baker, against the American Medical Association, the Journal was referred to as being for doctors, and "Hygeia" was mentioned as being for everybody. To me, this is its true status, namely, the authoritative voice of the medical profession for everybody. If one doubts that this be true, let him compare a copy of "Hygeia" with some other magazine printing quasimedical articles, "Physical Culture" for example. If you do not read "Hygeia" from cover to cover each month, you are missing much the best that modern literature provides on medical subjects. When finished with your copies, send them to some school or library so that their good work may go on.

I have been, I am, and I shall be a staunch supporter of the Woman's Auxiliary. I shall live to see the day when there is an Auxiliary in every county in the State that has a county medical society. I know that some of the unproductive efforts of your officers may seem discouraging, but you must remember that the Auxiliary movement is now, that the medical society had fifty years start on it, that even women's interest in civic and other affairs is relatively recent.

Those of you that are not members of auxiliaries should grasp the idea that these organizations have a serious purpose and a definite duty to perform as aids to the physicians' organizations in the different counties, and that you should belong and assist in these purposes. Mrs. Wm. McNab Miller, Director of Education in the Child Health Association, recently paid the medical auxiliaries a high compliment. She said that if there was some project that needed to be carried out, give it to the Parent-Teachers' Associations and the Medical Society Auxiliaries and it would be done.

In closing, it gives me pleasure to publicly express my personal appreciation of the activities of your members and officers during this last year. The work of your President, Mrs. Brooksher, was particularly commendable. Undoubtedly she was the most untiring worker in either the Medical Society or the Auxiliary.

HEADACHE IN RELATION TO THE EYE, EAR, NOSE AND THROAT*

Grace Tankersley, M. D., Pine Bluff

Physicians have been interested in the causes, prevention and cure of headache since the dawn of medical science. They have long known that headache is not a disease, but is a very common symptom of many local and general abnormal conditions. One of the unfortunate tendencies in the practice of medicine is to treat symptoms and not the underlying diseases which cause the symptoms. This is especially true in the case of headache, probably because its causes are so numerous that finding the cause of a given headache is often nearly as baffling as the search for the needle in the proverbial haystack.

Headache is the commonest, and one of the most annoying, complaints to which the flesh is heir. It is found in every branch of medicine, and doctors must be prepared to guide their patients into the proper channels for diagnosis and treatment if a cure is to be effected. There is a cause for every headache. When the doctor does not find the cause he is prone to attribute it to neurasthenia, which is unfair to the patient unless every other possibility has been ruled out. Since a specialist in any branch of medicine is naturally better versed in the conditions within his own field which may cause headache, when he encounters it in connection with an abnormality in his field which could cause it, he is likely to jump to the conclusion that this abnormality is the cause and fail to search further. But he should remember that often several causes contribute to the production of the pain and he should hesitate to assure the patient that the elimination of only one contrib-

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

uting cause will cure the symptom. Several contributing factors may unite to cause a certain headache; or, again, two or more morbid conditions may bring about two or more different headaches coming on independently of each other. S. Weir Mitchell pointed this out when he stated that a patient may have two or even three kinds of headache. A patient may have a headache from eyestrain and one from intestinal toxemia at the same time. Correction of the eyestrain alone will not free him from his pain. Both conditions must receive attention if he is to be cured.

De Schweintz (1) calls attention to certain well known, but often forgotten or neglected facts concerning headaches:

"1. The organ or area, which owing to disturbed function or inflammation, gives rise to headache, may be entirely free from pain.

"2. The dysfunction of the organ or area which causes headache may be trifling, and yet be as effective, or more effective, as a pain producer than in others where gross lesions are present.

"3. Many patients have two or even three kinds of headache, and not infrequently the subject is able to differentiate them; but not always, and it is the business of the physician to make so thorough an examination that the special condition on which the relief depends shall be determined.

"4. A potential cause of headache, for example, a refractive error, may exist a long time until it becomes suddenly mischievous, to use Weir Mitchell's neat expression, owing to increased sensitiveness of the brain from moral, mental or physical causes."

He also calls attention to the facts that doctors have too insistently accepted as etiologically significant such descriptive terms as "bilious headache," "pituitary headache," etc., and that they have often been lead astray in diagnosis by believing certain conditions always cause headaches in certain given locations.

Often more can be learned from a careful history of a headache than from a physical examination. Thorburn (2) suggests a comprehensive outline to follow in taking such a history.

1. Location of pain. The headache may be circumscribed or diffuse; may involve one area only, as supra-orbital or occipital; or may involve two or more regions, fronto-occipital; or it may include the whole head, general. The pain may be more or less superficial or it may be deeply situated.

2. Period of time in which headaches have been occurring; whether of recent or remote origin.

3. The character and severity of the pain. The pain may be of a paroxymal nature or may be steady; it may be a dull ache or a sharp acute pain; may be throbbing and affected by movement of the head or by change in position.

4. Time of occurrence. Some headaches are present when the patient wakes up in the morning; others come on during the day, sometimes after some special task or use of the eyes; still others occur at night and keep the patient awake.

5. Duration and frequently; note whether the attacks are brief daily affairs and at what time they cease, or whether they last several days and occur more or less rarely.

6. Associated signs, symptoms and phenomena, such as nausea, vomiting, vertigo, photophobia, may aid in the diagnosis; and do not overlook certain suggestive causes, as menstruation, pregnancy, occupation and special incidents, as coryzas, injury, fever.

7. Inquire into familial tendency to headache, and whether the individual has previously had similar headaches which have or have not been relieved.

To this might be added inquiry into the treatment the patient has received, and whether it had any effect upon the frequency, duration or severity of the pain.

Headaches have been classified in various ways; acute, recurrent and chronic; functional and organic; according to the portion of the body held responsible for the pain; ocular; pituitary, pelvic, etc.; according to the part of the head affected, as frontal, temporal, occipital; according to the character of the pain; dull, boring, throbbing; but all fall into one of three groups: mechanical, toxic and reflex.

In accounting for the production of the pain in headache, Barnhill (3) states, "The brain substance itself is not, so far as known, supplied by sensory nerves. The brain receives but cannot originate pain. On the other hand, the meninges, especially the dura mater,

is abundantly supplied with sensory filaments from three cranial nerves. The trifacial nerve furnishes the chief sensory supply to the dura, but the pneumogastric and the hypoglossal also supply nerves of sensation. Each of these cranial nerves, immediately after it has left the skull, sends a recurrent branch back to the dura which thus receives sensation wholly from sources outside the skull. The dura mater may be regarded as the sole sensory organ of the brain, and it may be assumed with reason that all intracranial pain, all headache of whatever type must originate solely in the dura as a result of some local or constitutional disturbance which either poisons or traumatizes its sensory nerve terminals. The sensory nerves of the dura are easily traumatized by reason of their anatomical situation. The cranium is an osseous box whose walls are nonelastic and wholly unyielding. Normally this box is completely filled by the brain, all of which is wholly enveloped by the meninges. Of the brain coverings the dura is almost as inelastic and unyielding as is the skull itself. The intracranial contents are, therefore, surrounded and sealed in two enveloping structures, neither of which will permit of any considerable increase of intracranial substance without the certainty of mashing the sensitive dura against the non-resisting wall of the skull, and consequently of irritation or injury to the sensory nerve terminals. Clinically it is known that intracranial pressure is increased greatly during the progress of many ailments, and, based upon the above anatomical facts, it may be understood why headache is a symptom in all such affections."

Besides increase in intracranial pressure from infection of the meninges and other intracranial structures, growth of brain tumors and abscesses, and excessive accumulation or cerebrospinal fluid, there is also an increase in intracranial pressure from disturbances of the cerebral circulation due to impairment of the sympathetic nervous system. To further quote Barnhill (3), "Sensory nerves are distributed only to the dura, but sympathetic nerves are abundantly supplied to the entire vascular system of the brain and dura mater. These sympathetic vasomotor nerves normally control and regulate the amount of blood that may at any time be necessary to cerebral function, and, when so controlled and regulated, headache of vasomotor type is not possible. If, however, the vasomotor nerves are impaired, and control of the cerebral circulation is lessened or lost, turgescence of the cerebral tissues occurs, increased intracranial pressure takes place and headache inevitably follows."

In my own field, eye, ear, nose and throat, headache is a very common complaint, caused most frequently from disturbances of the eye, next from those of the nose and least frequently from the throat. I propose to review briefly those conditions which may cause it.

First, I shall consider headaches of ocular origin.

Ocular Headaches

It has been stated by various writers that from 40 to 70 per cent of all headaches are due to eye strain. It was not until 1864 that the relationship between headaches and eyestrain was pointed out by Donders, a Dutch ophthalmologist. His work received very little attention, however, until our own great S. Weir Mitchell in 1876 elaborated it, and popularized it in the minds of the American physicians.

Eyestrain is caused by fatigue of the adjusting mechanism of the eye, either the internal, the ciliary muscle, or the external, the external ocular muscles. Strain of the internal mechanism is brought about by refractive errors, while that of the external is caused by muscle imbalance. Often the two conditions are associated.

The commonest locations of headache due to refractive errors are first, frontal; second, fronto-super-orbital; and third, occipital. Of all sites that of the vertex is the rarest. The symptom usually starts as a dull ache in or about the eyes and may progress to an intense general headache. It comes on after the eyes have been used for near work and usually passes off after the eyes have had a rest, as a night's sleep. If, however, the eyes have been used late the night before the patient may wake up with a headache, the next day. The commonest refractive error responsible for headache is compound hyperopic astigmatism and the rarest simple myopia. The degree of error has no bearing on the production of the pain: in fact often the most persistent and intense headaches are caused by very small errors and in cases in which the vision is normal. The severity of the pain depends upon the effort the ciliary body makes to overcome

the error. If the error is too great for the ciliary body to overcome, no effort is made to do so, therefore there is no pain. Good vision is no proof that there is not eyestrain. Often a physician who has referred a patient for an eye examination will ask when only a slight refractive error is found, "But, doctor, that isn't enough to cause a headache, is it?" Bear in mind that any refractive error, no matter how slight, especially if it be compound hyperopic astigmatism, can cause it, but whether in given case it is responsible can be proved in only one way—eliminate it. A refractive error in one person may cause no trouble, while in another, probably of more unstable makeup, it may produce much discomfort. Also an error may be present for a long time without causing trouble and suddenly produce headache because of the addition of contributing causes, such as illness, lowered resistance, worry, etc. Another fact to bear in mind is that often in cases of eyestrain the eyes themselves are entirely free from pain and fatigue and the only symptom may be headache. In determining the refractive error in all patients under forty-five years of age, and in selected cases past this age, a cycloplegic should be used, for it is only by temporarily paralyzing the ciliary muscle by the use of these drops that small astigmatic errors can be discovered; and remember it is the small astigmatic errors which most frequently cause headache. Even after the eyestrain has been removed, the headache may continue due to the run-down condition, which it brought about.

The headache caused by eyestrain from imbalance of the external ocular muscles as a rule is in the occipital region, but may involve any region or may be general, and very frequently is accompanied by dizziness, nausea and vomiting. The pain is usually intense and the patient often states that he feels as if his head will burst. Patients, and often even doctors, are prone to call this a "bilious headache." The attack is likely to come on following a shopping trip, a visit to the theater, a train or an automobile ride—the typical panoramic headache which is almost pathognomonic. It is practically always associated with a refractive error, the correction of which may remedy the imbalance. If it does not prism exercises, the wearing of prisms, or even surgery may have to be resorted to.

Overstimulation of the retina by excessive light produces headache. The glare at the seashore, the reflection of light on water during fishing trips on sunny days, working with light from an unshaded strong electric bulb falling directly in the eyes will produce such an over-stimulation, hence, a headache.

Of the ocular diseases which cause headache, incipient glaucoma is the most important. The patient is past middle life, the attack is usually in the evening, following some excitement, visit to the picture show, company, emotional strain, etc., hence it is often thought to be a nervous headache. The ophthalmologist rarely sees a case during an attack early in the disease, and if he examines a case the day following an attack, it is only by the most painstaking examination and history that he is able to make a diagnosis. The anterior chamber is shallow, but there is no inflammation, no dilation of the pupils, little or no increase in the intraocular tension. However, he is always on guard in dealing with nocturnal headaches in patients past middle life, and his leading inquiries are whether there was any clouding of vision during the attack, and whether there were colored rings around lights.

Aside from the pain in the eye in cases of acute glaucoma, iritis and other inflammatory eye diseases there is headache, but the inflamed eye directs the attention to the seat of the trouble.

It is interesting to note that such grave conditions as detachment of the retina, retinitis, choroiditis, optic atrophy, and many others are accompanied by no pain.

It is also interesting that in serious fundus diseases, such as neuroretinitis due to brain tumors, meningitis, syphilis, nephritis, the headache is probably due to the disease responsible for the ocular lesion and not to the lesion itself (4).

Nasal Headaches

Since the laity has learned there is such a condition as sinusitis, the rhinologist has many patients come to him for relief from headache, who have thus diagnosed their trouble. Sometimes they are right; sometimes wrong; but, at any rate, with increasing numbers of patients seeking him for relief from

headache, he must be familiar with nasal conditions which might cause this symptom.

Affection of one or more sinuses, with or without suppuration, is the commonest cause of nasal headache. Always suspect sinusitis in cases of headaches dating from attacks in influenza or coryzas. Sinus headaches occur about the same time each day and pass off during the day. They almost never occur at night, except in cases of acute empyema with obstruction.

The headache of frontal sinus disease is almost pathognomonic. It is situated above the eyes, over the affected sinus, may spread over the entire side of the head, and in many cases, even though only one frontal sinus is affected may spread to the opposite side of the head. The pain usually comes on in the morning after the patient is out of bed and passes off sometime during the day. Bending forward increases the pain and causes dizziness. In chronic cases, the patient after daily headaches for several weeks may be free of all pain for sometime, only to have it reappear for a longer or shorter duration. These recurrences are due to catarrhal infections, irritants in the air or vasomotor changes which cause the sinus to flare up. As the catarrhal condition within the sinus clears up the headache disappears.

The vacuum frontal sinus headache is caused by closure of the fronto-nasal duct with consequent partial absorption of the air in the sinus, thus creating a lowered pressure within the sinus and congestion of the lining membrane. This headache is commonly confused with that of eyestrain, because any movement of the eyes aggravates the pain. The reason for this is that there is tenderness at the upper, inner portion of the orbit at the attachment of the pulley of the superior oblique muscle, and the action of this muscle pulling on the sensitive floor of the sinus at this point produces pain.

There is no typical headache in diseases of the maxillary sinus, though the commonest location is in the frontal region, and there is usually canine tenderness on pressure.

Headaches from involvement of the anterior ethmoid cells are usually either frontal or situated between the eyes, and those from the posterior ethmoid cells and the sphenoid are more likely to be in the occipital or deep temporal regions. However, one must not put too much reliance upon their locations.

Sluder described a condition which he called nasal-ganglion-neurosis, and which he attributes to inflammation of Meckel's ganglion. The pain begins at the root of the nose, sweeps back through the eye, across the temple and mastoid to the occipital region and neck. It may extend to the shoulder down the arm, forearm and hand and even to the tips of the fingers. It is always most severe just posterior to the tip of the mastoid. To diagnose the condition a pledget of cotton soaked in cocaine is placed posterior to and above the posterior border of the middle turbinate. The pain will cease almost immediately if the ganglion is at fault. For more permanent relief 2 per cent silver nitrate solution is applied over the ganglion. If this fails the ganglion can be injected with one-half cc. of 5 per cent phenol in 95 per cent alcohol.

All conditions which cause pressure on the end organs of sensation within the nose can result in headache. These may include turgenscent turbinates, vasomoter disturbances, growths, deflected septae, crusts from atrophic rhinitis and various inflammatory conditions, as coryzas, contraction of scar tissue, etc.

In children, large adenoids may cause persistent headaches.

Headaches of Aural Origin

The otologist correctly views with alarm any headache arising during the course of an ear affection. It is extremely rare that an acute, sub-acute or chronic suppuration confined to the middle ear produces headache, and while it may occur in acute or chronic mastoiditis, it is not a prominent symptom unless there is insufficient drainage. A headache accompanying otitis media nearly always means intracranial involvement, and persistent headache in mastoiditis may be due to the same cause. However, unilateral and even bilateral headaches may occur in mastoiditis due to filterable toxins in the general circulation, or reaching the dura through perivascular lymphaties (5). The common complications of middle ear suppuration and mastoiditis, abscess of the inner ear, extradural, perisinus, subdural and brain abscesses, thrombophlebitis of the sigmoid, superior and inferior petrosal sinuses and meningitis are always accompanied by headache (5). The headache of subdural, extradural and super-

ficial brain abscess is usually unilateral, and more intense over a small tender percussion area, which corresponds to the site of the abscess. During the early stage of deep brain abscess the headache may be slight, but later, as the condition progresses, it becomes intense, and may or may not be referred to the region of the abscess. In cases of cerebellar abscess the pain is usually, but not always, in the frontal region. The headache of brain abscess is, as a rule, paroxymal in character with intervals free from pain, and is accompanied by a slow pulse and vomiting. Contrary to general belief, the vomiting may or may not be projectile, but it occurs when the pain is at its heights and bears no relation to the taking of food (6).

Suppuration of the inner ear is accompanied by headache, which is of a very severe type and may involve any or all portions of the head. Unilateral deafness and mystagmus are associated with it.

Throat Affections and Headache

Affections of the throat play a very minor role in the production of headache. In acute follicular tonsillitis, peritonsillar abscess, tonsillar abscess and septic sore throat, headache is often present, as it is in any toxic condition. Chronic infection of the tonsils indirectly causes headache through lowering the patient's resistance. Such a patient is frequently prey to headaches brought on by numerous trifling causes such as sorrow, fatigue, nervous upsets. Malignant tumors of the pharynx also are commonly accompanied by headache.

In closing, I wish to stress two points: First, do not be bound by the narrow confines of any one branch of medicine when searching for the cause of a headache; and second, always hesitate to assure a patient that the elimination of a demonstrable cause will cure his headache. Remember there may also be other causes.

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DR. TANKERSLEY, in closing: I have nothing further to say except to thank the gentlemen for the discussion.

DISCUSSION

DR. H. MOULTON, Fort Smith: This paper is one of the best expositions of the subject of headache that I have ever heard and I think that every one here who has heard the paper should take it and study it when it is published in the Journal. Everything is so complete in giving the causes of different kinds of headaches and suggestions as to the diagnosis of different kinds. Any diagnosis of the cause of a headache, however, may prove to be incorrect because those headaches with symptomatology indicating certain causes may sometimes be misleading and found to be due to some other cause. At the beginning of the great wave that swept over the country in regard to curing headaches with glasses, oculists of renown claimed that 75 per cent of all headaches were due to eye strain. Shortly after that, years after that, there was a great wave of nasal surgery spread over the country. Rhinologists claimed that they could cure 75 per cent of the headaches. Later on a large percentage were promised cures by the tonsil surgeon. Nowadays we are beginning to hear of allergy as a cause of headache. No doubt, one type of headache, migraine, is in many cases due to some form of allergy, but that hasn't yet been proven. The great point in the study of headaches is this—the doctors have heard patients complaining of headaches and they always will—the main point in every case is to seek out and remove all recognizable causes of headache, being guided by the symptoms which indicate the most probable cause first.

I think we are all indebted to the essayist for this paper.

DR. H. J. G. KOOBS, Rogers: I believe with Dr. Moulton that this paper deserves special commendation. It certainly has taken a lot of work on the part of the doctor who prepared this and I am sure it is well worth her effort to review this subject. I regard it, in fact, as a text on headaches. This is of particular interest to me because I am reminded that 25 years ago this summer I presented my first paper to a State Medical Association and it was on headaches. So it is naturally of interest to me to have this presented by Dr. Tankersley today.

I feel that there is not much more to be said on this topic than has been said, except that I believe it ought to remind us at least that the many headaches which are complained of, may be due to one of very many different causes, and that it is our duty to investigate each case and try to determine the cause and not just prescribe some analgesia.

DR. ROBERT CALDWELL, Little Rock: With the two preceding doctors I want to thank Dr. Tankersley for the interesting and educational paper just presented. An outstanding feature of her paper in my estimation is the emphasis laid on the fact that co-operation among the doctors in the diagnosis of a case is indispensable.

It is not enough that a headache is temporarily alleviated by one of the various means at our disposal, we should strive to discover the exact cause and eradicate this, rather than being content with palliative measures.

We have many cases referred to us in which a headache is the cardinal symptom and it then evolves on us to differentiate the type of disorder that causes it. The sinuses and eyes are of course in our line the chief culprits, the tonsils rarely being at fault. The diagnosis of a frontal or maxillary sinusitis is in practically all cases quite easily made, but the sphenoids present a great deal more difficulty, not only due to their relative inaccessibility in comparison to the other sinuses, but to the obscurity and diversity of symptoms.

We follow a routine in the diagnosis of a sphenoid sinusitis consisting of first the nasal inspection, second the mapping of the blind spot, for when this enlarges one should suspect an involvement of the homo lateral sphenoid sinus, and lastly the X-ray examination.

There are two general types of involvement in the sphenoids, the suppurative and the hyperplastic. The first causing a headache by virtue of the contained pus, while the latter causes it by the pressure exerted by the thickened tissues. Extremely satisfactory results may be obtained in these cases by removing a large portion of the anterior wall of the sinus.

Innumerable headaches are relieved by properly fitting a patient with glasses. I want to emphasize one point Dr. Tankersley brought out, namely that an error of refraction does not always bring on a headache in proportion to the size of the error, for I have seen many cases which have had errors as great as one or one and one-half cylinders with absolutely no headaches, while others with as small a deviation from the normal as twenty-five or fifty cylinders have the headache as the dominant complaint.

The paper had so many well taken points that one could continue the discussion for quite a while and then not do it adequately, so I will not burden you any longer.

THE TREATMENT OF CRANIO-CEREBRAL INJURIES*

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Fort Smith

In these days of increased industrialization and increased speed of transportation, more especially since the advent of improved highways, every physician, be he in the industrial center or the remote rural district or, as some one has put it, "At 42d and Broadway or the forks of the creek," will have more and more frequently the opportunity and responsibility of caring for Cranio-Cerebral injuries. In almost no other field is the immediate care of the patient so fraught with possibilities for good or evil. It may frequently happen that the very life of a patient depends on the intelligence, judgment, and skill of the physician who is first to take the case in hand. More frequently will this be the case when the injury occurs in a place remote from hospitals and the consultants who are available in urban areas.

Hospital care is advantageous and often essential in the care of patients who have sustained cranio-cerebral injuries. Every patient who has sustained a cranio-cerebral injury of any moment should have the benefit of hospital care where there are facilities for adequate study and where, if necessary, special treatment may be instituted. However, a nicety of judgment is demanded of the physician who must decide whether the patient's condition, at the time, justifies a trip of two or three hours or more in order to obtain hospitalization, or whether the patient's interest would be best served by providing him with the care that could be given in a nearby home. Frequently the most urgent indication for treatment is the condition of shock, and, unless hospital facilities are quickly and easily available, the efforts to combat shock should be carried out "on the ground"—*i. e.*, at the nearest suitable place. When the patient has reacted from shock, it is time to arrange transportation to the hospital for further study, X-ray examinations, etc. It would be tragic folly to rush a badly shocked unconscious patient 60 or 70 miles in an ambulance to the hospital, only to have him die an hour or so after arrival. It would be much better to combat shock at once, and perhaps the patient's condition would improve so that the trip could be made later with safety and benefit.

The tendency in the past was to regard cranio-cerebral injuries largely from the standpoint of fracture of the skull—as Pearce Bailey said, "If the patient recovers, remarkable, he had a fracture of the skull; if he dies, well, he had a fracture of the skull." The present tendency is to regard these injuries from the standpoint of damage to the intracranial contents. Maclaire (1) says, "Those of us who treat many head injuries have come to realize that the patient is far more fortunate with a fractured skull, when a cerebral complication is concomitant, than without it. Very often his life is spared because of nature's method of decompression established by the fracture and at other times

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surgical intervention is necessitated; the former is a natural decompression where as the latter is an artificial one."

That the present tendency, *i. e.*, to regard these injuries from the standpoint of injury to the brain is correct is shown by numerous studies. LeCount and Apfelbach (2) in a series of 504 autopsies found that "The most frequent change in brains of patients dying from fracture of the skull was traumatic edema of the brain and it was the only change to explain death in a few cases." Vance (3) in a review of 512 necropsies gives the causes of death as follows:

Cerebral concussion	139
Exhaustion	14
Secondary pneumonia	27
Cerebral compression, lacerations of the brain and subdural hemorrhage	156
Cerebral compression and extradural hemorrhage	61
Meningitis and other septic conditions	48
Operation	4
Epilepsy	3
Other injuries	30
Natural causes	25

It may be seen by these and other studies that we should regard these patients from the standpoint of the underlying damage rather than that of fracture of the skull.

Management: Usually the first indication in the treatment of cranio-cerebral injuries will be the treatment of shock. The rapid, weak pulse, the low blood pressure, the subnormal temperature are unmistakable evidences of shock. This may be simulated by a rapidly progressing medullary edema but in the latter the temperature will show a progressive rise. Until shock has been overcome nothing can be successfully done and nothing should be attempted other than superficial debridement and disinfection of wounds, control of external hemorrhage, etc. Adson (4) makes this exception to the foregoing statement—"In other cases it is apparent that hemorrhage is in progress and that immediate exploration is necessary, even though there is no evidence of recovery from shock."

Shock may be combated by: 1—External Heat. This is an important measure that should not be deferred under any circumstances. The bed clothing should be warm and dry. The patient should be dried frequently without undue exposure. Hot water bottles, or hot bricks or electric heating pads may be used advantageously. (This may seem elementary but I have seen, in consultation, patients in a severe state of shock in cold bedrooms with cold, wet clothing still on, and this some hours after the accident.)

2—Administration of Fluids—Saline or glucose solution by hypodermoclysis or better, intravenously. No more should be used than is necessary to effect recovery from the condition of shock because, as will be shown later, one of the best methods of combating the later effects of cranial injuries, notably cerebral edema and increased intracranial tension, is dehydration. However, when shock is present it is the immediate condition to be corrected and fluids must be used. A strong infusion of coffee may be given per rectum or, if the patient can swallow, by mouth.

3—Morphine, the drug "par excellence" in the treatment of shock must be used sparingly if at all in shock incident to head injuries. Rand (5) says, "Use morphine as little as possible—never employ one-fourth grain doses. Morphine in large doses is contra indicated for three reasons: 1. It contracts the pupils covering up inequalities of the pupils which may be present. 2. It tends to mask the symptoms of oncoming stupor which may be due to cerebral edema or hemorrhage. 3. It often fails to quiet the patient, although it depresses the respiration and pulse." Mock (6) says with reference to morphine—"In cases of extreme delirium and great shock on admission, one may be justified in administering morphine rather than see such a patient thrash himself to death, but it is seldom indicated."

It is probable that other sedatives c. g. those of the Barbital group, will serve the purpose of sedation and they are free from the objectionable features attributed to morphine.

4—Blood transfusion is perhaps the best single-handed method of combating shock and if a suitable donor is present and the arrangements for a transfusion completed a small transfusion *i. e.* 250 cc. may be of great value.

5—Posture. In shock a lowered position of the head is desirable. In head injuries the head should be elevated. In head injuries with shock we may choose a mid course and have the patient lie flat in bed.

6—When the patient has a cold, clammy or "leaking" skin atropin is of value and should be used in fairly large dose—1-100 grain and repeated in an hour if neeessary. Caffein and camphor are used by some.

When the eondition of shoek has been corrected, more detailed examinations are in order. Of eourse, some of these examinations e. g. observations of pulse and blood pressure, temperature, state of eonseiousness, eondition of pupils, etc., that ean be made without undue disturbanee of the patient, ean and should be made often from the time the patient eomes under observation. The findings should be reeorded. The more detailed examinations to be made after the patient has reaeted from shoek, inelude detailed neurologieal, spinal fluid, opthalmoseopie and, if the patient's eondition permits, X-ray examination. The latter should be made with the portable maehine if the patient's eondition seems at all serious. It seems to me very unwise to cart a deeply uneonseious patient to the X-ray room and subjeet him to the several changes in position neeessary to get good X-ray pietures of a fracture of the skull. We may get some beautiful films and have a dead patient, or the X-ray may not show fraeture and thus eneourage unwarranted optimism. This, in turn, is apt to be followed by earelessness in observation and so lead to disaster.

Much ean be learned by careful and repeated clinieal examinations. We may determine whether lesions are foeal or general and if foeal where situated—whether they are irritative or paralytic. A study of the pulse and blood and spinal fluid pressure will aid in the determination of inereased intra-eranial tension, eerebral edema, eompression; in other words, the degree and extent of intra-eranial damage. The further management of the ease will depend upon the findings noted. External wounds should receive appropriate attention. If there is escaping blood from the ear, the ear should be mopped out gently under aseptie preeautions with a pledget of cotton saturated with some antiseptie and the eanal filled with a pledget of sterile eotton. Antitetanie serum may be given if the eonditions surrounding the aeeident indieate its use. Aside from these measures nothing ean be done exeept keep the patient quiet, unless one of the following eonditions exist or oeeur. If there is evidence of inereasing intra-eranial pressure e. g. slowing of pulse, ehange in respiration, deepening of unconseiousness and inerease in spinal fluid pressure, treatment should be aggressive to prevent fatal medullary edema. In the deeade 1910-1920 a great many of these eases were operated, a temporal deeompression being done. In the last deeade more of these patients were treated by medieal means and as a result the death rate has been lowered. Fay states that in his series the mortality is lowering to 10 per eent.

Magnesium sulphate, two ounees, should be given by mouth if possible, or six ounees of a saturated solution may be given per reetum every 4 to 6 hours. It is definitely proven that magnesium sulphate thus used, results in a deerease in intra-eranial pressure.

Hypertonie solutions may be given intravenously. The best one is a 50 per eent glueose solution in doses of 50 to 75 ee. This aids in lowering intra-eranial pressure and in dehydration of the edematous brain. In this eonneetion it would be well to know whether the patient is a diabetie or not.

Fluid intake should be limited sharply. Fay suggests limiting to 750 ee. to 1,000 ee. per 24 hours.

Spinal puneture and lumbar drainage: There is a sharp diversity of opinion as to the advisability of spinal puneture. Dandy (7) protests its use emphatieally as does Cushing. Frazier (8) feels that it may serve a very useful purpose at times. Temple Fay is enthusiastie and employs it to the extent of eomplete drainage. It is apparently gaining in popularity, but should be used judieiously. If the spinal pressure is 20 to 30 mm. drainage should be permitted until the inereased pressure is reduced by half. It may be repeated every 6 to 12 hours as neeessary.

As the patient improves dehydration measures should be gradually suspended, and fluids eautiously increased.

The measures outlined will often eorreet eompression due to edema, laeerations and subaraehnoid hemorrhage.

Of eourse the measures deseribed would be of no avail in eompression due to extra-dural or subdural hemorrhages, ete., and this brings us to the surgieal indieations in head injuries. They are few.

1. Correcting depressed fraetures. Depressions should be eorreeted, loose fragments

or spicules of bone removed and wound thoroughly cleaned.

2. Compression due to extra dural hemorrhage.

3. Subdural accumulations of fluid.

When these conditions are present, a well timed, properly executed operation is essential in order to save the patient's life, or to restore him as a useful member of society.

A subtemporal decompression with removal of extra dural clots, ligation of a bleeding meningeal artery, or drainage of subdural accumulations of fluid is the only effective measure, with edema following laceration or bruisure for these conditions. Intra-cranial pressing of the brain, subarachnoid hemorrhages, etc., is best cared for by the use of the medical measures previously outlined.

Finally, it should be remembered that these patients have sustained trauma to "the master tissue of the body" and they should resume normal activities only after a prolonged period of rest, and then, gradually. About 65 per cent of these cases have sequelae in the form of headaches, dizziness, weakness, etc., lasting over a period of months or years.

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DISCUSSION

DR. EARLE H. HUNT, Clarksville: I have enjoyed this Fort Smith dry clinic this afternoon very much. Dr. Hoge's paper is the most comprehensive paper on this subject that I have had the pleasure of hearing in a long time. Unfortunately for me or for him, one, I didn't see anything that he left out that I could criticise him for as much as I would like to. I can only compliment the essayist on the paper.

There are a few points which I think should be stressed. It has been customary to rush these patients to the X-ray, turn them around, twist them around. I have no doubt that lots of them have been killed in so doing. It is far better to leave them in some farm house along the roadside than to rush them even seven or eight miles, rather than seventy or eighty miles, which he mentioned. A certain number of these cases will die regardless of what is done. Consequently there is no rush unless there is increasing hemorrhage. There is no rush for an operation. There is no use to go in and make a compound fracture out of an already simple small fracture. Magnesium sulphate per rectum, I think, should be followed in nearly all of these cases. I don't believe that spinal puncture is increasing in popularity. The custom of puncturing the spine is only of diagnostic value in most of the cases and from a therapeutic standpoint only in selected cases has it proven of any benefit.

I appreciated the doctor's paper.

DR. J. A. FOLTZ, Fort Smith: There are two things that give me very particular satisfaction in the discussion of this paper. One is that I am able to agree with Dr. Hoge in practically everything that he has said; and the other is that I am able to emphatically disagree with Dr. Hunt in the principal thing that he said.

I will take up the lesser evil first, Dr. Hunt. I want to say that I think that spinal puncture is most assuredly gaining in popularity. I think that spinal puncture has a distinct place. I think it should be used more. I think so for the reason that if properly and skillfully done—and it certainly should not be undertaken unless it can be properly and skillfully done—it presents no possible chance for harm and no one who has seen spinal puncture in these cases of cerebral edema, in these cases of wild, delirious head injuries where the blood pressure, the pulse and the general condition has gone entirely wild, can deny that they have seen almost spectacular results from spinal puncture. If under such circumstances when you make your spinal puncture, your fluid comes out under high tension, you can go home and go to sleep feeling sure that you are going to get benefit, marked and immediate. If, on the other hand, there is not much increase of spinal pressure or compression of the spinal fluid, you probably may not get any improvement but certainly you have done your patient no harm and, in my humble opinion, you have given him a chance which he has a right to.

Another thing that Dr. Hoge has said that I want to emphasize, because I think all these papers and discussions before a body like this should be given with the idea of disseminating a knowledge which taken back to the various communities may sometimes result in saving somebody's life or in reducing mortality. That point is the use of a hypertonic solution, particularly 50 per cent glucose, used freely, fearlessly and sufficiently. I don't think there is any question but that this is at times a life saver.

Another thing that Dr. Hoge quoted from the authorities that I want to disagree with to a slight extent, I believe that the use of morphine and atropin has a very distinct place in the treatment of head injuries when delirium is marked. I think that the use of sodium amytal is also a very great aid in those cases. Dr. Hoge, I believe, did not mention that.

DR. F. WALTER CARRUTHERS, Little Rock: I wish to take the opportunity to compliment the essayist upon his excellent paper.

At this time, I want to emphasize that in my humble opinion, there has been far too many operations done on cranial injuries in the past. I believe that you will agree with me that it is because of the fact that we have been unable to differentiate between injuries to the vault itself in comparison to injuries to the intracranial tissues. In other words, I feel that there are three types of head injuries; first, those with fractures of the skull; second, cranial injuries without fractures to the skull and third, those with both fractures and injury to the intracranial tissues.

I wish to further most heartily agree with the essayist that there are few indications for radical surgery, and for those of us who have to deal with these types of injuries, we are glad to know that the pendulum of conservatism is swinging in the right direction again and bears out the fact that these cases should be handled most conservatively.

Regarding the administration of fluids in intracranial injuries, one should guard himself very carefully in regards to administering fluids, especially during the crucial time which is the first forty-eight to sixty hours following the injury.

Too much emphasis cannot be placed upon the use of the lumbar puncture. I think that the secret of success in the treatment of these cases lies in the use of the lumbar puncture.

I do not think it can be used too often provided one knows what he is doing, that is, what he is expecting to accomplish by the use of the lumbar puncture. Any procedure may be dangerous for those who are not experienced in doing these things, especially if he does not understand the indications and contra-indications for so doing. Lumbar punctures in cranial injuries can be done every two, three, four, five or six hours, providing of course, they are necessary. As I stated in the beginning, conservatism is the paramount procedure in treating these types of injuries.

Dr. Mock of Chicago had recently called to our attention in a very splendid article published in the Journal of American Medical Association, that the specialist should be brought to this patient rather than the patient being brought to the specialist, therefore, it is much better, as Dr. Hunt of Clarksville stated in his discussion, if these patients can be handled in the farm house by the side of the road where these injuries are first seen rather than to rush him to some even nearby hospital.

When the patient is first seen, I think he should be placed in a room that is warm, place the patient in bed, rather than rush him on to some operating table, which is too often the case; and have some able intern to state at the breakfast table the following morning that he spent a busy night sewing up extensive wounds on a skull and proudly stating that he had to take some forty or fifty stitches. On the other hand, if these patients are carried to a room and put to bed and treated for shock, you are more likely to have a patient that you can see on the street walking about in a number of weeks, in contrast with sending him to the undertakers.

As to the use of magnesium sulphate, I use it routinely in the treatment of all my cases, this as you know is known as the dehydrating method, this too, should be carried out as the essayist stated, in a conservative and routine manner.

I wish to state again that I think Dr. Hoge should be complimented for this paper, it is certainly in keeping with the present-day attitude regarding cranial injuries.

In closing, I wish to emphasize the point that we must and should be able to differentiate between intracranial injuries and the injurly that may be accompanied by a fracture of the skull. They are two distinct and separate conditions.

DR. J. A. FOLTZ: There is one thing I want to say because I really intended to do that particularly when I got up, and that is this: that there are three principles underlying the treatment of these cases. The first principle is rest, the second principle is rest and the third principle is rest; and the thing that you want to remember particularly, all of you gentlemen, is this: don't wait to make a diagnosis of a head injury. The law of the land, that every man is presumed innocent until proven guilty, should be reversed; in cases of head injuries, every case should be presumed to be guilty until proven innocent, and if you can do this it will save more lives than almost anything else or a combination of all of them that I know of. If you will assume that every man who has had a fall on his head, who has had a head injury of any kind, has a serious brain injury, and put him to bed and make him stay there four or five days until the contrary has developed, I think it will be the greatest one thing towards preventing serious complications than any other thing you can use.

DR. PAT MURPHEY, Little Rock: The subject of brain injuries and fractured skulls is a very important one, and one which every doctor has to deal with. You all know that some of the most serious injuries to the brain happen without a fracture of the skull. You can get a fracture of the skull without having an injury to the brain. The things to carry out in these conditions are, first, to treat the patient in shock, as Dr. Hoge outlined. After your patient has recovered from shock, I believe that the lumbar puncture should be done. If you find free blood in the spinal fluid, that means an intra-cranial hemorrhage. The pressure may be about normal; or it may be high; but it is the presence of the blood that means more than the pressure of the fluid. If you don't find blood in the spinal fluid, that does not mean that your patient does not have an intracranial hemorrhage because if you get a hemorrhage of the meningeal artery, your hemorrhage may be between the dura and the skull, as Dr. Hoge showed here a few minutes ago, where the man had paralysis of one side. So, you can have an intracranial hemorrhage and not find any blood in the spinal fluid.

Now, as to treatment. If you find free blood in the spinal fluid, I think you should drain that patient by lumbar puncture every four or five hours until that spinal fluid is free of blood, because it is the blood in the spinal fluid that stops the circulation in the subarachnoid space and that is what causes these patients to have the mental condition after the recovery from the acute injury. By draining until the spinal fluid becomes free of blood, you save this mental condition. As a rule, increased intracranial pressure will not appear before three to six hours, manifesting itself by ophthalmoscopic findings. But you can detect an increased intracranial pressure before three hours by measuring the spinal fluid pressure with a spinal mercury manometer.

As to treatment, I think you should limit your patient's intake of fluids. If the patient is in a delirium or in a semi-comatose condition, I usually limit him to twenty ounces of fluid in twenty-four hours. After they begin to get better, you can increase that.

As to giving them medicine, magnesium sulphate decreases an increased intracranial pressure by taking fluid out of the capillary bed in the intestines into the bowel and you have to give them a laxative to flush the bowel to get rid of it. Glucose solution, fifty per cent, given intravenously, decreases the intracranial pressure by drawing the fluid directly out of the cells themselves into the circulation.

So, by giving glucose intravenously, and magnesium sulphate by rectum or intravenously, and draining by lumbar puncture and watching the patient, you will save more than you lose and you will save ninety per cent from having so-called traumatic neurosis following their recovery from the acute condition.

I enjoyed Dr. Hoge's paper and think it was a very commendable one.

MAJOR JAMES M. TROUT, Army and Navy Hospital, Hot Springs: I have enjoyed the discussion that the preceding paper on particular elicited this afternoon. It is one of the fairest and most comprehensive surveys of the situation I have heard, and yet, I venture to say that there will not be a surgeon leave the room with his opinion changed one iota. Every one of them will go out thinking just the same as they did when they came in. But this subject we are talking about now is one of great importance. It is one, if we can get the message through, that will result in actually saving lives. I don't propose to enter into a discussion of the whole subject. I simply want to add my emphatic endorsement of lumbar puncture. I don't think that there is any single measure in the treatment of this disease which has made such a change in the mortality as the use of the lumbar puncture. It doesn't matter to me what the pressure is. Drain, but don't drain every four hours, or every twelve hours, or ten hours, but drain for 30 hours for effect. When you puncture the spine, unless it is done carefully with a small needle in the proper manner, you may get blood adventitiously. So that, while bloody spinal fluid does mean a lot to me, the thing I would like to see is my patient get better three or four hours after puncturing the spine. I don't think there is the slightest danger in lumbar puncture if done carefully. I know it will save life. I have in mind one particular case in my practice who was saved through relief of sub-cerebral pressure by lumbar puncture, just recently.

I know in the Army hospitals, where we used to do anywhere from ten to fifteen decompressions, now, we are getting the same results entirely with dehydration. I like the dehydration diet; 750 or 600 cc., if you get them by with it.

Just one feature about lumbar puncture in these cases which I have not heard mentioned by anybody else; that is that you will have more or less difficulty in doing the puncture unless you have quite a number of helpers to hold the patient. You have to be very careful sometimes not to break the needle and leave it in the spine. But, as Dr. Foltz said, after you drain the spine you can go home and rest easy, feeling that your patient is going to get better.

DR. HOGE, in closing: I thank you for this discussion. I have tried to get the point over that these patients should be treated on the ground. They should be treated very, very carefully right at the beginning and as soon as possible after the accident the shock should be overcome. As soon as shock has been overcome, no matter how trivial the injury may seem, it is well if at all possible for the patient to be where special measures may be instituted if necessary. If it is impracticable to carry out the measures that have been outlined in the paper and by those who have discussed it, then it is best for the patient to be in a hospital.

One must differentiate between subarachnoid hemorrhage, paralysis of the brain, lacerations of the brain, cerebral edema and those of extradural or sub-dural origin, because unless that differentiation is made disaster may occur.

And there is certainly still a field which will always continue to exist in which operation may be urgently needed. But the emphasis should be placed on the fact that the majority of these patients will respond better to the conservative measures, dehydration, as outlined in the paper and by those who have discussed it.

One other point is that I believe that in doing lumbar puncture, it is best if possible to do it under the control of a spinal mercurial manometer so that you know what your compression is. If that is possible, it is better to do it that way. If not, lumbar puncture is indicated anyway. But if it can be done with a spinal mercurial manometer as a control or guide, one can tell whether he has a maximum or relative increase. The rate of flow through the spinal needle will vary very much, depending upon the caliber of the needle and is not an accurate guide.

Book Reviews

Discovering Ourselves. A View of the Human Mind and How It Works. By Edward A. Strecker, A. M., M. D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia; and Kenneth E. Appel, Ph. D., M. D., Assistant Professor of Psychiatry, School of Medicine, University of Pennsylvania, Philadelphia. Published by the MacMillan Company, 60 Fifth Avenue, New York. Price, $3.00.

The contents of this interesting book are divided into two parts, First: "Conceptions of Modern Psychology" and Second: "The Psychology of Every Day Life. The Conflicting Urges of Thought, Feeling, and Action."

"It is the purpose of this book to help us to reach the goal of clear and honest thinking. It should enable us to see a little farther into our inner selves. It should permit us to manage our minds better. If we are 'Nervously' inclined or happen to be passing through a so-called 'nervous breakdown', we should be helped toward a realization as to how the condition developed. It should assist us toward adjustment and recovery. Finally, we should come to understand that 'nervous breakdowns' are not inevitable and in many instances may be prevented. It is indeed no more necessary to have them than it is to have smallpox or malaria."

THE JOURNAL
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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial Clippings

ETHICAL IDEALS AND COMMERCIAL METHODS IN THE PRACTICE OF MEDICINE

H. B. Decherd, M. D., Dallas, Texas

"If ever the human race is raised to its highest practicable level, intellectually, morally and physically the Science of Medicine will perform that service."—Rene Descartes. (French Philosopher, 1596-1650.)

Yes, "times and conditions change"; but the ideals of medicine are eternal. Holding to this view, the Dallas County Medical Society, for nearly a year now, has set itself the task of ridding the profession of the incubus of commercialism in this Age of Jazz. We *have* gone about our work through the long days carefully, calmly, courageously, judiciously and fairly in all instances and to all concerned. We have endeavored to purge ourselves of certain irregularities (mainly forced upon us from without our ranks), in an honest effort to provide efficient, adequate and available medical service at all times for every member of the community, regardless of race, color, condition or creed.

While the record of the Society's achievement may be only a short story, told here on the rim of the Great Southwest, its members are sincere in their hope that an enduring page of medical history has been written. It will, of course, be impossible to tell all the details of the story; but in this issue of the Dallas Medical Journal, official organ of the Society, some of the main points at issue will be briefly discussed. While we have given battle along a hundred fronts, the main conflicts have been waged about certain definite and major issues.

The most outstanding of these is Contract Practice. We tenaciously hold to the view that medicine is not a business. Mass production only serves to drain the very lifeblood of the gentle Art of Healing. A sick man is not a machine in need of repair. It takes time and thought and individual consideration of each and every patient. You may hand him a hundred indexed cards showing the result of a hundred laboratory tests, but he cannot receive them and determine his own recovery. Along the line somewhere, must come a comprehensive and sympathetic friendliness in summing up the needed therapeutic regime, for this one individual and particular mind-body unit. It is true he lives

in the mechanized Age of Jazz, but what he needs is a competent and conscientious physician, who still possesses the traditional ideas of love, beauty, responsibility, and common honesty. Synchronized sensation should never be allowed to usurp the place of old-fashioned conscience.

Another topic very closely allied with Commercialized Medicine is referred to as the "Cost of Medical Care." It is often called the "High Cost of Medical Care." It might be styled the "Cost of High Medical Care." Only too often the unwary and ignorant patient demands what he does not need. Three-fourths of the efforts put forth on the average patient are unnecessary. Needless laboratory tests and references to many specialists are often not needed, even though demanded by the patient. A real doctor is more to be desired than a dozen technicians. Three-fourths of all ailments can be adequately handled by a thoroughly competent general practitioner. This fact should be invariably noted in the "Education of the Public." Just here, it may be well to remind both doctors and laymen, whenever the cost of medical care is mentioned, that we intellectual Americans part with our money as follows each year:

Automobiles	$5,000,000,000
Tobacco	1,800,000,000
Candy	1,000,000,000
Movies and Entertainment	930,000,000
Chewing Gum, Soft Drinks	910,000,000
Jewelry, Furs	780,000,000
Patent Medicine and Drugs	700,000,000
Doctors	650,000,000
Cosmetics	500,000,000

We see that patients pay more for chewing gum and candy than they do for doctors, and about three times as much for tobacco. However, facts such as these are common knowledge. We should face them, not ignore them. They should be given due consideration in the problems that now confront the profession. We have given them thought in the valued work which we are now undertaking.

Our members have shown a startling unanimity of opinion and purpose. By a vote of 189 to 13, they voted to suspend the members of a certain clinic that refused to surrender its contract practices. We have been unanimously upheld by the Board of Councilors of the Texas State Medical Association. The above mentioned clinic has appealed to the Supreme Court of Ethics (Judicial Council of the American Medical Association). We have every reason to expect that our penalty will be affirmed in that court of last resort. Our Society has fought an unselfish fight. We have a pardonable pride in our achievements so far. We have striven for what we thought was right, as honor, faith, hope, and love gave us to see it.

And now, we place in your hands the record which has cost us no little heartache and tribulation. Oftentimes, even our scientific programs have been disturbed by having our undivided attention distracted from them. Nevertheless, we deemed that prompt and determined consideration of present evils might serve to eliminate greater ones in the future. Our course is just as important and outstanding for each and every doctor and patient in America as it is for us. From everyone, everywhere, we ask help and cooperation. Help us to keep our beacon light burning, and uphold our hands in all we do to preserve medicine from its enemies without and within. The Dallas County Medical Society dedicates itself to a noble desideratum; and to it pledges its unfailing zeal, its unflinching courage, and its sacred honor. The Society, here she stands!

—*Dallas Medical Journal*, June, 1932.

FREE MEDICAL AID FOR VETERANS

Free medical care for veterans with non-service disabilities is a policy which eventually will bankrupt the nation, a committee of doctors and engineers told a House committee of the Missouri Legislature.

"This is unfair competition with the peaceful pursuit of the private practice of medicine," the leader of the medical delegation declared. 'It's a gross injustice, a reprehensible practice. Why not provide free groceries, free homes, and free automobiles?' "

A former president of the American Medical Association pointed out that 30,000 physicians, themselves former service men, were affected by any competition which the government may furnish the profession.

The complaint of the physicians is justified in a thousand ways. Why should men who are financially able to pay for treatment be allowed free service at the expense of the taxpayers, even though such service did not mean competition with the doctors?"

When the subject of "state medicine" is mentioned a great howl goes up that it is a "bolshevik" idea. Free medical service for the veterans is state medicine, nothing less. In times of depression the doctors have even greater trouble collecting for their services—heaven knows it's a tough job to collect even during good times—and yet Uncle Sam makes their lot harder by passing out free treatment to men whose disabilities are in no way related to war service.—*Arkansas Democrat*, August 6, 1932.

Abstracts

SARCOMA OF CHOROID

Herbert Moulton and E. C. Moulton, Fort Smith, Ark. (Journal A. M. A., August 6, 1932), report six cases of sarcoma of the choroid in which the patients were seen and operated on at an early stage and were followed up for from five to twenty-seven years. There were three cures; two patients were living and well from fifteen to twenty-seven years after operation. One was living and well, fifteen years after operation, when he died suddenly of apoplexy at the age of 73. There were three deaths from metastasis, four years and eight months, one year and ten months and nineteen years after operation, respectively. All the patients who had lived had tumors of the small spindle cell type, one of which was a leukosarcoma. In two of the fatal cases the tumors were of the round cell type, and one was a small spindle cell sarcoma. On the basis of their observations the authors infer the following conclusions: 1. Metastasis in sarcoma of the choroid may occur after the earliest enucleations. 2. It may occur as late as nineteen years after enucleation. 3. It may occur with any type of cell, but the round cell is most malignant.

RESULTS IN TREATMENT OF ACUTE APPENDICITIS

Frank K. Boland, Atlanta, Ga. (Journal A. M. A., August 6, 1932), presents a statistical study of the results obtained in the treatment of acute appendicitis. The study is based on a review of 4, 270 cases in which treatment was given by 197 surgeons in eight hospitals in Atlanta during five years, from 1927 to 1931, inclusive. All except forty-six of the patients were submitted to operation. The fact that there were no deaths among 219 patients admitted within six hours after onset demonstrates the immense value of prompt action. Most of these patients were students and nurses under closer supervision than the average person. The author concludes that the two outstanding factors in mortality and morbidity are delay in operative treatment and the promiscuous administration of purgatives before operation. The fault usually lies with the patient or with his family or friends, but the attending physician or surgeon is not always blameless. The error may be due to ignorance on the part of the patient, but it also may occur with the knowledge and consent and advice of the medical attendant. The physician's mistake is not one of ignorance, but of carelessness. Efforts must be continued and enlarged in the education of the public as to the early care of abdominal pain, a campaign that has been waged so vigorously in Philadelphia. The medical profession, however, must not be guilty in this respect, and not let familiarity with the commonest of all surgical diseases induce criminal somnolence.

Personal and News Items

Dr. Geo. Holitik of Blue Ball has moved to Waldron.

Dr. S. J. Hesterly of Prescott made a business trip to Little Rock this month.

We regret to announce the death of Mrs. J. H. Weaver, wife of Dr. J. H. Weaver of Hope, July 19, 1932.

The Public Relations Committee of Saline County and the Radio Committee of Garland-Hot Springs Society are sponsoring a series of Health Talks over K. T. H. S. each Friday at 5:15 p. m.

The Staffs of the Leo N. Levi Memorial Hospital and the Charles Steinberg Clinic, Hot Springs, will hold their second Clinical Conference October 13th and 14th.

The program and general arrangements of last year's meeting was received so enthusiastically that this same group of men are again offering to be your hosts this year.

Doctor Louis A. Buie, Chief of the Proctological Division of the Mayo Clinic, will be the guest speaker. The subject which he will discuss will be "Problems in Proctology for

the General Practitioner." They will also have as their guest, Major James M. Trout, Chief of the Surgical Service of the Army and Navy General Hospital of Hot Springs, Arkansas.

The conference will consist of lectures, demonstrations and clinics on medical and surgical subjects, the material of which will be so selected as to be of especial interest to the general practitioner. Members of the staffs will present cases and clinical reports instead of reading papers. There will be no registration fee.

Grayson E. Tarkington, M. D., is chairman of the Conference Committee.

The medico-military course of inactive duty training for Medical Department Reserve Officers, which has been held at the Mayo Clinic during the past three years, will again be held this year from October 16 to 29, both dates inclusive. This inactive duty training will follow the plan so well worked out under the auspices of Colonel George A. Skinner and the military features will be under his personal supervision.

This medico-military course is based on the sound principle that when the Reserve officer gives up two weeks of his time for inactive duty training at his own expense he should derive some benefit therefrom which will definitely help him in his profession. This method of training takes cognizance in a high degree of this principle in that the student officer gets two weeks of excellent clinical post-graduate work without fee and without any greater loss of time from his practice than normally is incurred for post-graduate work, along professional lines. At the same time he gets a definite amount of medico-military training, the benefits of which he retains.

In furtherance of this concept, the Mayo Clinic has freely placed all of its clinical material, laboratory, museum, library, and so forth at the disposal of the Medical Department Reserve officers taking this inactive duty training. The faculty and staff of the Mayo Clinic have volunteered to give their services free in the interests of national defense.

This short course is equally applicable to general practitioners and specialists. The morning hours are devoted to purely professional subjects selected by the student officers. The afternoon hours pertain solely to medico-military subjects and the evening hours are covered in a lyceum course of general interest.

Application for this course of inactive duty training should be made either to the Director of the Mayo Foundation, Rochester, Minnesota, or to the Corps Area Surgeon, Seventh Corps Area, Omaha, Nebraska. Applications should state the character of the work the candidate desires to follow in the morning hours. All student officers are expected to attend and to participate in the afternoon and evening sessions. Each applicant should fully understand that the invitation to accept this course of study without charge is extended by the Mayo Clinic; that the project is without expense to the government; and that two hundred hours' credit will be given to those who take and complete the course.

Obituary

WALT, DAVID CROCKET—Dr. D. C. Walt of Little Rock died July 22, 1932. Aged sixty-eight.

Dr. Walt was born in Shelby County, Tennessee, and was reared and educated in Memphis, where he attended Christian Brothers College. He was graduated from Memphis Medical School in 1883 and came to Arkansas the following year. For twenty-five years thereafter he practiced medicine at Wabbaseka, Jefferson County. In 1885 he married Miss Caralie Bridges of Meridian, Miss., who died in Little Rock in 1916.

In 1908 he moved to Little Rock and helped establish the Physicians' and Surgeons' Hospital. He practiced medicine here until his last illness. In 1918, he married Miss Hattie Woodruff Bell, who died in 1924.

County Societies

CRAWFORD COUNTY

(Reported by F. G. Engler, Sec.)

The Crawford County Medical Society met July 26, in Van Buren.

Dr. S. J. Wolfermann of Fort Smith was the essayist. His subject was "The Colon," with lantern slide demonstrations.

The following were elected to serve on the Public Relations Committee: M. S. Dibrell, Van Buren; F. G. Engler, Mountainburg; J. A. Wigley, Mulberry.

Dr. W. R. Brooksher, Jr., Fort Smith, was a visitor.

CLAY COUNTY

(Reported by J. E. McGuire, Sec.)

The Clay County Medical Society held its regular monthly meeting in Piggott, April 12, 1932, in the Masonic Hall.

The invocation was given by Rev. F. A. Lark, pastor of the First Methodist Church. He followed this with a short talk.

Following the regular business session, Dr. Byron Futrell of Rector read a paper on "The Prevention of Puerperal Infection."

Another interesting feature on the program was a discussion by James R. Spurlock and J. H. (Uncle Doc) Thomas, both pioneer citizens of Clay County. Their subject was "Pioneer Physicians of Clay County."

Dr. E. S. Mitchell of Okmulgee, Okla., was a guest at the meeting. Members present: W. O. Parrish, W. J. Blackwood and J. B. Futrell of Rector; J. P. Hiller of Pollard; N. J. Latimer and M. C. Richardson of Corning; F. H. Jones, J. E. McGuire, Geo. Cone and E. W. Thornton of Piggott.

CLAY COUNTY

(Reported by J. E. McGuire, Sec.)

Dr. and Mrs. J. P. Hiller of Pollard entertained the Clay County Medical Society, July 12, 1932, at the Corning bridge on Black River with a chicken supper. Dr. W. O. Parrish, president of the Society, presided over a business session. Dr. J. E. McGuire gave the report of the previous meeting.

Rev. Abner Sage of Corning was present and offered prayer, sang a negro spiritual, and gave a most interesting talk.

Those present were: Dr. and Mrs. W. O. Parrish and son, Dr. and Mrs. J. B. Futrell, Dr. and Mrs. J. B. McGuire, Dr. and Mrs. Geo. Cone, Dr. and Mrs. N. J. Latimer, Dr. and Mrs. DeLoy Jernigan and son, Dr. C. H. Newkirk, Dr. M. C. Richardson, Dr. Brandon of the Brandon Hospital of Poplar Bluff, Mo., and Rev. and Mrs. Sage, Dr. and Mrs. J. P. Hiller and son, Elbert.

YELL-POPE COUNTY

(Reported by Roy I. Millard, Sec.)

The Yell-Pope County Medical Society met in regular session in Dardanelle, July 14. Members present: Gillum, Cale, W. A. Montgomery, Haster, Clement, Pool, Scarlett, J. K. Grace, Hood, L. M. Smith, Webb, Gardner, Millard and Griffin. Visitors: Dr. John Smith and Mr. Griffin of Atkins.

Dr. Scarlett read an interesting paper on "Syphilis," and presented a very unusual case.

Dr. Millard read a communication from Dr. Parmley, Chairman, Committee on Legislation.

Dr. Pool, County Health Officer of Yell County, discussed the subject of immunization in Yell County. He stated that there had been some complaint and criticism about the manner in which the immunizing clinics were being held. He said that he and Dr. Garrison were anxious to work out some plan whereby they could carry on the work of immunization and yet not interfere with the local members of the profession.

Dr. Kent Grace mentioned a misunderstanding that had occurred in his town. Some local citizens, who were able to pay for treatment, had petitioned Dr. Pool to hold a free clinic in their town. Dr. Grace insisted that vaccine should not be given to any except those who were unable to pay.

Dr. Pool said that it was the aim of the Health Department to give vaccine and other immunizing substances only to charity patients, but that if people who were able to pay came to the "Clinic" he could not refuse to give it, because he was not able to separate them from those who could not pay. He stated that the "Clinics" were advertised for people who were unable to pay.

The concensus of opinion was that much of the trouble was due to a misconception on the part of the laity as to the intention and function of the County Health Unit.

Dr. Hood made a motion that the President appoint a committee to investigate the situation and make recommendations at the next meeting. The motion was carried, and Dr. Griffin appointed Drs. Hood, Scarlett and Grace. Dr. Grace requested that someone be appointed in his place. Dr. Millard was then appointed.

The next meeting will be held in Russellville, the second Tuesday in September.

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Original Articles

THE CONSERVATIVE TREATMENT OF PERITONITIS*

R. B. ROBINS, M. S., M. D., Camden

There are two objectives that I have in mind in presenting this paper, viz., to review the measures used in the conservative treatment of peritonitis and to introduce a new type of nasal tube which I have devised.

Peritonitis is the most dreaded complication with which the abdominal surgeon has to deal. It is the cause of the high mortality rate in appendicitis. Possibly many cases of peritonitis might terminate more favorably by a diligent use of the conservative measures which I am going to review.

After the offending focus has been removed there is no reason for operative treatment in diffuse peritonitis You can drain a localized peritonitis with an abscess but you cannot drain a diffuse peritonitis.

Once the decision has been made to adopt conservative therapy, certain rules of treatment have been formulated. Conservative therapy is generally associated with the name of the late A. J. Ochsner, and correctly so, because throughout a large portion of his active life he devoted much of his time and influence in popularizing some of the principles which are to be described.

REST

Rest, of course, is the outstanding principle in the treatment of any disease. To obtain rest in peritonitis the use of opium and its derivatives is essential. Morphine or pantopon should be freely used. It should be used at regular intervals and in dosage sufficient to keep the patient free from pain, anxiety and to allay intestinal peristalsis. We know that the churning movements of the intestines tend to spread the infection. After the storm of the infection is over, codeine in one grain doses by hypodermic may be substituted for the morphine and thus the danger of the narcotic habit eliminated. A long continued use of morphine may also be harmful in that it favors intestinal distention and stasis and hence adds to the toxemia.

HIGH FOWLER'S POSITION

A type of bed should be used which provides for elevation of the trunk of the body and which also breaks under the knees so that the patient may assume a semi-sitting position. Peritonitis tends to localize in the lower portion of the abdominal cavity provided this position is used. The pelvic peritoneum appears to be more tolerant to infections than the peritoneum in the upper abdomen. Again, abscesses in the lower abdomen can be more easily diagnosed and treated in the pelvis through the natural body orifices, viz., the vagina and rectum. Hence the use of Fowler's position is of great importance.

NOTHING BY MOUTH

Nurses frequently consider this order to mean "nothing but water." But the order means exactly what it states. The idea of this principle, of course, is to maintain gastro-intestinal rest. For this reason water or any other substance whatever by mouth is strictly contraindicated.

COMBAT DEHYDRATION, STARVATION AND ANEMIA

Food and water having been prohibited by mouth it becomes necessary to provide these by some other route. Water is far more important than food, for patient's can be deprived for a much longer period without food than they can without water. However both food and water can be supplied at the same time in the form of glucose solution. Four or five liters of fluid each twenty-four hours should be administered to the average adult suffering from peritonitis.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

The rectal drip is a very unsatisfactory method of introducing fluid because it is annoying to the patient, it is very poorly absorbed and if dextrose is used it increases distention through fermentation. Someone has said "why replenish the depleted body fluids by uncertain doses of manure water, when hypodermoclysis affords a positive ample supply of clean sterile fluid for the body need."

The best routes for administration are by hypodermoclysis or by intravenous infusion and the best manner in which to use these methods is by the use of the continuous drip method. It has been found that peritonitis patients develop a hypochloremia, especially cases that vomit a great deal. It is therefore important that salt solution be given. This can be given in the form of normal salt solution or can be given intravenously in the form of hypertonic solution. Glucose can be given in conjunction with the normal salt solution either hypodermically in the form of a three to five per cent solution or intravenously in higher concentration. It is recommended that insulin be used in conjunction with the glucose, using one unit of insulin to three grams of glucose. This insures the complete metabolism of the glucose.

I think we have overlooked many times in these cases the value of blood transfusions. There is no question that many of these cases might be saved by the use of one or several transfusions. The direct transfusion of whole unaltered blood is probably better than citrated blood.

It seems to me that there is a need for research work to be done with regard to stimulating leucocytosis in donors previous to transfusions in septic cases. Also it would be interesting to determine whether or not it would be worthwhile to build up an immunity in the donor previous to a transfusion by the use of vaccines or serums. Professional donors could be given such vaccines or serums at intervals and be ready for use in peritonitis cases. I think this would be a field which it would be worthwhile to investigate.

Transnasal Gastric Lavage

We have in peritonitis an intestinal obstruction of the paralytic type. This leads to a toxemia from the fluid content of the intestinal tract. Due to reverse peristalsis this fluid is regurgitated constantly into the stomach and causes persistent vomiting. High enterostomy has been recommended in these cases in order to keep the intestine drained of this toxic material. Enterostomy very rarely does all that it is intended to do, usually only a small portion of the intestine is drained. The use of the nasal tube for keeping the stomach empty of regurgitated toxic intestinal contents gives the advantages of an enterostomy without the disadvantage of an extra surgical proeedure in a bad risk patient. It has the advantage of ease of accomplishment and a minimum of discomfort to the patient. It does away with persistent vomiting and adds to the comfort of the patient.

I would like to quote Dr. John B. Deaver, whose opinion in abdominal surgery we all respected. His statement in an address before the Milwaukee Surgical Society March 3, 1930, was as follows: "My experience has forced me to discard jejunostomy and enterostomy because of the high mortality which has attended these procedures. I now use the Jutte tube and have seen a very satisfactory decrease in mortality since doing so. The Jutte tube, which is passed through the nose, has proved to be a very valuable pre-operative and post-operative adjunct. It is one of our chief assets in post-operative treatment, not only in appendiceal peritonitis but in other forms of peritonitis as well. The tube is well borne, keeps the stomach empty, prevents vomiting, and makes the patient comfortable. Post-operative vomiting is not only distressing to the patient but favors the spread of infection and by its straining action on the wound predisposes to eventration.

The stomach is kept empty and clean by injecting a warm saline solution every hour through the tube and immediately aspirating it. This does not in the least disturb the patient, but on the contrary, makes him feel better. It is a common occurrence to see the patient go to sleep after the tube has been introduced and the stomach emptied. In our experience, intestinal regurgitation is best handled in this way. We find it much more valuable than either a jejunostomy or an enterostomy." That is the statement of Dr. Deaver.

The difficult problem I have had with the nasal tubes that I have used has been the difficulty of introducing the tube. With that in mind I have devised a tube which is easy to

introduce. This tube has a blind rubber tip beyond the perforations in the distal end of the tube. A flexible wire stilet is greased well with vaseline and inserted in the tube which makes the tube easy to introduce. After the tube is introduced the stilet is withdrawn and the tube left in place. A two per cent solution of butyn is used on the nasal and pharyngeal mucous membranes previous to the introduction of the tube. The tube is well greased with vaseline before introduction. It may be left in place for a number of days. The tube has a black ring seventeen and one-half inches from the distal end which is the distance from the anterior nares to the cardia.

There are some other less important measures at our disposal in the treatment of peritonitis which may be mentioned.

Hot external applications in the form of hot turpentine stupes seem to be valuable. They should be used at regular intervals. The abdomen may be kept warm between the applications by the use of an electric pad.

Gas-bacillus antitoxin has been used in these cases with varying results as reported by different investigators. There is no uniformity of opinion regarding its value.

It is frequently necessary to use cardiac drugs in these cases. The use of cardiac drugs in septic cases is a subject within itself. I think it may be said that the two most valuable drugs are digitalis and caffein sodabenzoate. Digitalis, when support is needed and caffein, when stimulation is needed. Both of these are, of course, to be given hypodermically.

I want to close this paper by mentioning enemas and such drugs as eserin and pituitrin only to condemn their usage, except when the storm of the peritonitis is well over. Otherwise much harm may be done.

We have professionally and publicly condemned the use of cathartics in cases of appendicitis. Enemas may be very harmful at times also. Cases have been reported where enemas have been given previous to operation in appendicitis and the appendix has been ruptured. The enema fluid has been found free in the peritoneal cavity at operation. Most surgeons have had fecal fistula cases and know that when enemas are given to these cases the enema fluid makes the circuit of the colon and will flow out of the fecal fistula. That illustrates the danger of giving an enema in appendicitis. Not only may an enema be harmful previous to operation but it may be harmful post-operatively. I have had one instance in which an enema was given on the third day following an appendectomy and apparently was responsible for a peritonitis on account of leakage through the amputated stump of the appendix. Great caution should

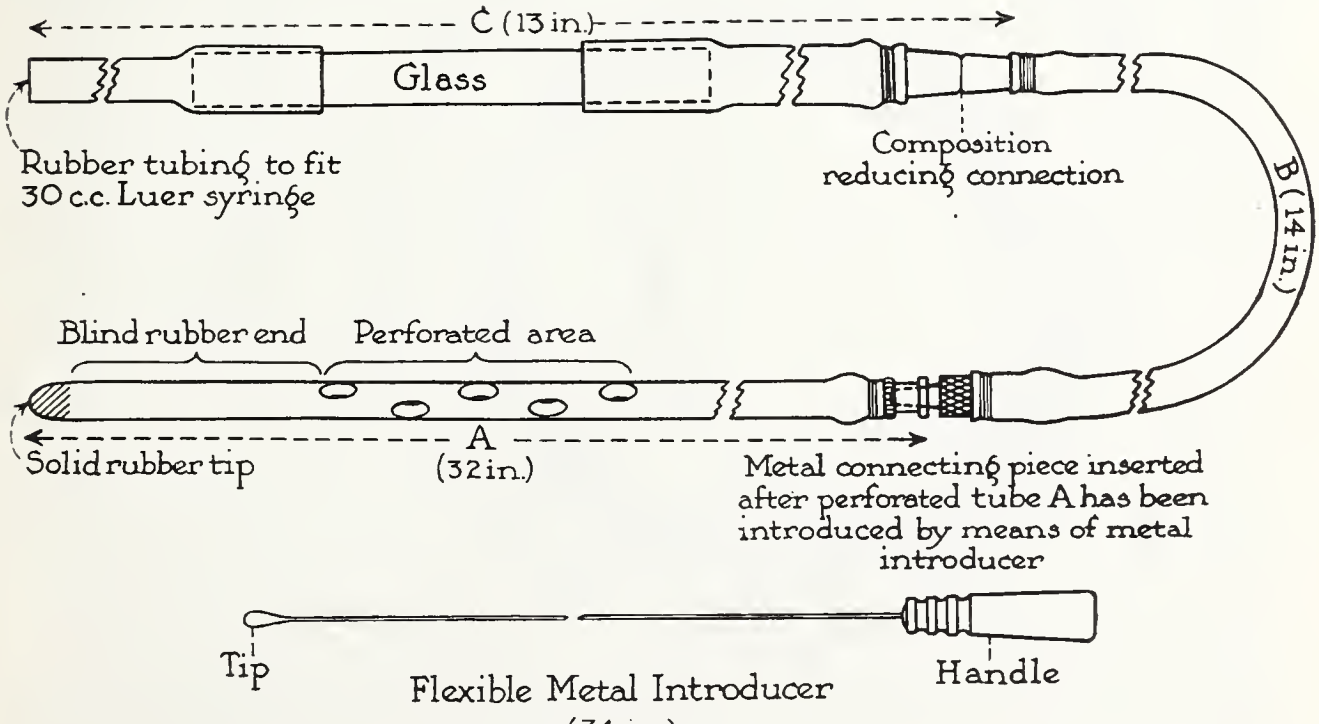

Fig 1. Drawing of Nasal Tube

be used in the giving of enemas. They are contraindicated in the treatment of peritonitis as they tend to break down Nature's protective wall of adhesions, stimulate peristalsis and spread infection.

DISCUSSION

DR. DEWELL GANN, JR., Little Rock: Dr. Robins has presented a very timely topic. I am interested in it, particularly because I just made a review of 457 cases of peritonitis that I have had the privilege of treating during the past year or two. Fortunately only nine of them died. I was not familiar with the Robins tube at the time I treated those patients but I welcome it. I have seen it in the Scientific Exhibit and I think it is a very valuable contribution to the treatment of peritonitis.

All of us know that the intestinal content is responsible for the death of the patient because of the particular affinity for the myocardium. If we relieve the intestinal content of its toxicity by means of a Robins tube, our patients will not die. Therefore, it is doubly welcome. It is welcome in more than one sense. Of course, we don't have a great deal of difficulty in introducing the ordinary Jutte tube or the Levine tube but there are times when we don't have the time to introduce that tube ourselves and then it must relegate itself to the responsibility of the interne. The interne is always in a hurry, as we are, and he cannot in some instances introduce the ordinary tube but he could with the applicator that Dr. Robins has devised introduce the tube without a great deal of difficulty.

I want to thank Dr. Robins for his studies and contribution along this line. Peritonitis, I presume, has caused us loss of sleep more than any other one thing, and a little thing as simple as it may appear to be as the Robins tube will save us a lot of hours of good slumber.

DR. J. S. RINEHART, Camden: I have always been very much interested in the Ochsner method of handling peritonitis. We get along as well by his method as by the Robins tube method. However, it is a decided advance in keeping the peristalsis quiet in our patients.

I think in closing Dr. Robins should mention the result of the use of his tube in a case of general peritonitis he treated only recently.

DR. ROBINS, in closing: I thank the gentlemen very much for their kindness and discussion. Dr. Rinehart and I are bosom friends. He always likes to take a crack at me if he gets an opportunity. This tube, I am not offering as a cure-all for peritonitis but I am offering it as a substitute for enterostomy. It seems to me that it is a very common practice to use enterostomy in peritonitis cases and I think the mortality has been increased as a result. With the use of the nasal tube instead of enterostomy, we cannot possibly do any harm and may only accomplish good with it, and I only offer it as a substitute for enterostomy.

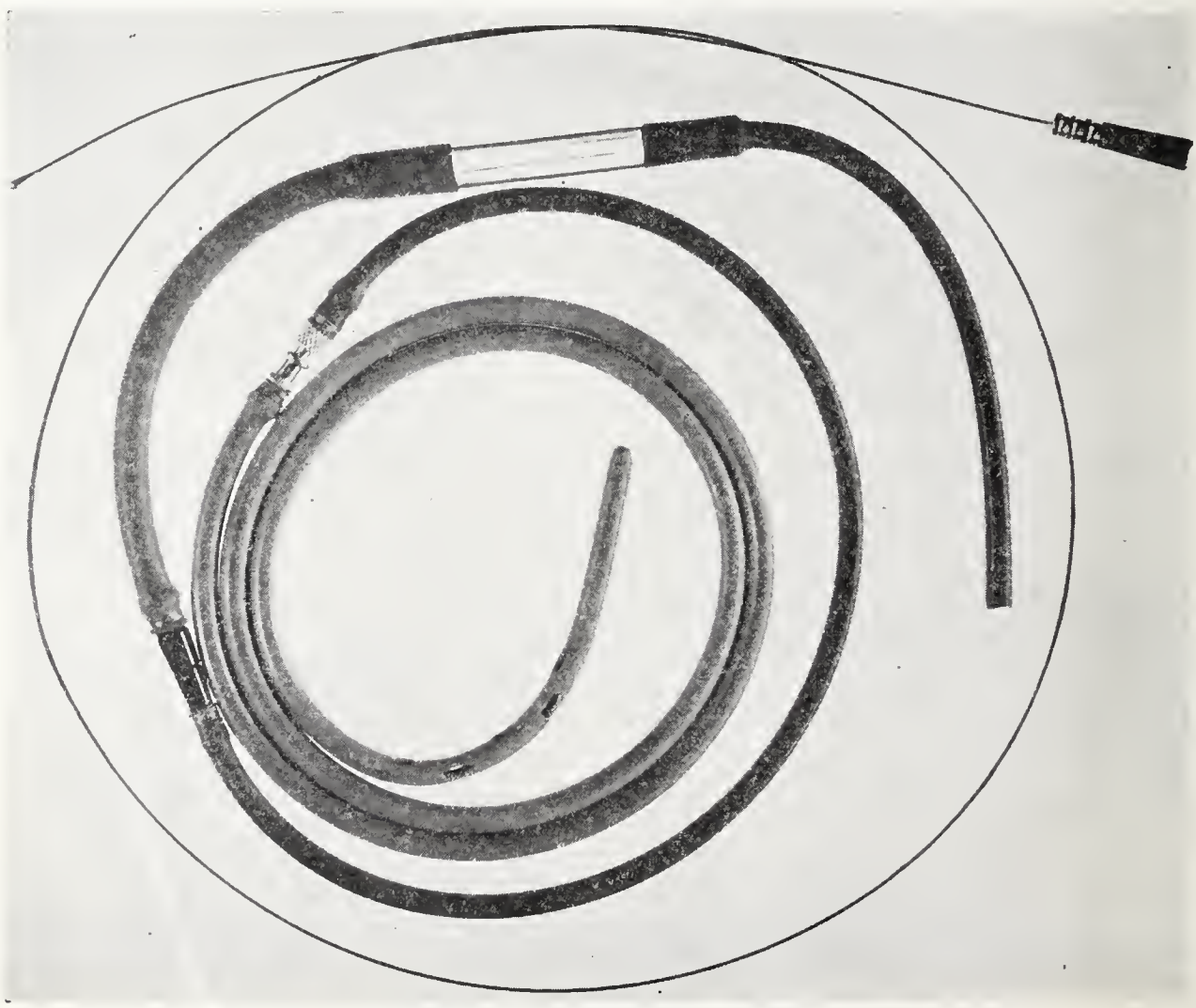

Fig. 2. Photograph of Nasal Tube.

THE SURGICAL ABDOMEN FROM THE DIAGNOSTIC STANDPOINT*

J. S. Wilson, M. D., Monticello

Since the work of Pasteur in showing that most of the diseases and all of the suppurative processes in mankind were caused by bacterial infection and since the practical application of this knowledge by Lister, to surgical procedures, the surgical opening of the body cavities has become so commonplace as to elicit no especial comment from any course.

It is well that we from time to time take stock of our procedures and see if we are well balanced, and where we are going too far and where we are not going far enough. The proper use of the field of diagnosis is our one means of attaining this desired end.

It is the purpose of this paper to review the work and records of the writer during the past fifteen years, and attempt to discover the mistakes he and his confreres have made and try to find a means of preventing these same mistakes in the future.

It is evident to any serious observer in any fairly busy surgical hospital that far too many lives are lost in the acute surgical conditions in the abdomen, because of too much delay in discovering the true condition by diagnostic means. It is equally evident that in the past too much surgery has been done in the human abdomen in the chronic conditions.

I wish to stress at the outset the great difference in the acute and the chronic surgical conditions in the abdomen.

In my observation in fairly busy small town hospitals in Arkansas during the past fifteen years, more than 75 per cent of the surgical deaths have been due to acute conditions, chiefly peritonitis, which oftener than otherwise has followed a ruptured appendix.

Although peritonitis following a ruptured appendix is the most frequent cause of surgical deaths in my experience, there is a far more fatal condition met, though fortunately not as frequently as peritonitis. I refer to intestinal obstruction.

If there is one condition known in which a correct diagnosis made early can save more lives than in this, I do not know it. During the past two years we have had in our hospital nine cases of intestinal obstruction with five deaths and four recoveries. Every one of the recoveries were discovered by proper diagnosis early. One of the fatal cases was operated upon on her eighth day, and actually lived five days after, only to die of the enormous dose of toxemia she had.

Have our deaths been too high? Assuredly yes. But are they higher than those of other hospitals? To answer this we have reviewed the work of some of the world's best surgeons, and find Sir Berkley Moynihan saying that the surgery of intestinal obstruction is a disheartening thing and that in his opinion for every reported cure there are four deaths. He further says there are few surgeons who have done more than twenty operations for intestinal obstruction who can boast of more than 50 per cent cures, and that everything above 10 per cent is the mortality of delay in operation.

Cutting in the American Journal of Surgery for December, 1931, quotes Van Bur in saying the longer a patient lives before operation, the sooner he dies after. Cutting also quotes Millers statement that as a general rule the mortality increases approximately 1 per cent per hour for each hour of delay in operation.

Millers observations were made on a series of 343 cases and he found that those cases operated upon within the first twelve hours had a mortality of 29.4 per cent, those within twenty-four hours 42.9 per cent, those within thirty-six hours 50 per cent, those within forty-eight hours 59.6 per cent, those within seventy-two hours 63.4 per cent, those within ninety-six hours 72.8 per cent and above ninety-six hours 84 per cent.

These figures bring home to us the fact that in intestinal obstruction we are dealing with one of the most fatal conditions afflicting mankind and the further most important fact; that in its earlier stages it is relatively amenable to operative cure; hence, the enormous responsibility of every physician in recognizing the condition in its earlier more curable stages.

More deaths in my own experience and observation in surgical conditions have been due to peritonitis following a ruptured appendix than any one cause known.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

Why is this? In a large majority of the cases it is due to delay in diagnostic recognition and early operation. I do not have a record of a case dying from an appendectomy where there had been no rupture while after rupture the percentage of deaths are high.

Is this in keeping with the experience of others? To determine this we have reviewed the records as published by some of the better known hospitals and operators and find: Sloan stating in Dean Lewis surgery that the mortality in interval appendectomies is a fraction of 1 per cent, while in late cases the mortality runs from 10 per cent to 30 per cent. This clearly shows the loss of human life by our inability to recognize this condition in its incipiency.

If there is any one thing which we should all ponder, with the full realization of our serious responsibility, it is the recognition of the acute surgical conditions in the abdomen and the prompt surgical intervention, which alone can save life here.

Of course, there are other conditions occurring which belong to the classification of acute conditions and demand just as much attention when they occur. Among them are, tubal pregnancy, ruptured duodenal or gastric ulcer, ruptured gall-bladder and traumatic conditions as stab and gunshot wounds. However, they occur so much less than the two conditions mentioned that our attention should be focused upon these two conditions primarily, but above all, learn to recognize the fact that an emergency exists which demands immediate operation for the patient's safety.

In contradistinction to what has been said about the acute surgical abdomen, we have the chronic conditions demanding relief, which in every case the outcome and the patient's welfare will depend more upon rigidly correct diagnosis than in any field I have any knowledge of. It is the operations done on the abdominal organs, without proper diagnostic work serving as a foundation in chronic condition, which have brought more disrepute upon the surgeon than all others combined.

Let us understand in the outset that in a patient with a chronic abdominal syndrome we are never facing a surgical emergency; and that he can take all the time he needs to have a correct diagnosis of his condition made, and that he can safely go to as many places and different clinics as he wishes without jeopardizing his life. Furthermore, let us not forget that many patients coming to hospitals and clinics with abdominal or digestive syndromes absolutely have no pathology in their abdomens, but many of them are suffering from reflex symptoms from pathological conditions in other parts of their bodies and many of them are suffering from psychiatric and neurotic conditions. In two hundred cases of persons coming to me during the past five years with histories of chronic abdominal pathology in whom I know the outcome from operation or prolonged observation, there were found forty-two individuals or 21 per cent who had some form of cholecystic disease. Eighteen, or 9 per cent, had duodenal ulcer, two had gastric ulcer, two had gastric cancer, both soon dying, six had cancer of the colon, two had cancer of the rectum. The gastric and duodenal ulcer cases were all diagnosed by X-ray and physical history, and observed over at least a year. This gave seventy-two cases, or 36 per cent, of 200 persons who had a marked history of abdominal pathology in which there could be demonstrated organic pathology.

What about the other 64 per cent? Among these 128 persons with histories pointing directly to their abdomens or digestive systems as the source of their trouble we found absolutely no organic or functional pathology which could be demonstrated, and careful observation, after their examinations, has shown this to be correct.

However, there was in this number five individuals, or 2.5 per cent, who had pernicious anemia. My experience with this condition leads me to believe that many of these people complain of digestive trouble before anything else, and with their achlorydria, their sallow skin, one may be misled unless careful work is done with the blood. Thirty-one cases, or 15.5 per cent, were found to be harboring focal infections in the teeth, throat, and nasal sinuses, the clearing up of which gave most of them relief and left no room to suspect organic abdominal pathology in any of them.

Four, or 2 per cent, had pulmonary tuberculosis. Eight, or 4 per cent, had some stage of Lues; and here the most difficult condition to differentiate from gastric maligancy was

met with. On X-ray examination some of these patients had the most marked deformity of contour, and the first thought of one when studying them was bound to be malignancy. However, when the general condition of the patient is considered, the history of longer time, and the fact that their deformity is not an organic lesion, shown by repeated re-examinations, especially after giving sedatives, and the finding of positive Wassermanns will keep us level here. Eight cases were found in which pathology of the uterine appendage was clearly demonstrated and properly treated in which relief was had.

After eliminating these individuals in whom pathology was demonstrable in other parts of their bodies, which reflexly caused their digestive symptoms, and those in whom organic pathology could be demonstrated in their G. I. tracts, or its appendages, there are left forty-three cases, or 21.5 per cent, in whom no pathology could be demonstrated, either within their abdomens or any other part of their bodies. Most of these individuals were markedly neurotic in their appearance and behavior, and being unable to find any organic pathology in their bodies I have classed them as psychoneuroses.

I know this is not a popular diagnosis, and that my percentages are higher than most observers; however, I have exhausted every means at my command to find organic pathology to account for their symptoms, and many of them have had examinations at many other places and in none of them has definite pathology been shown. Hence, I am of the opinion that they are better classified as psychoneuroties and kept under proper observation, than to be operated upon for conditions which cannot be demonstrated as organic lesions needing surgery.

An outstanding example of this was seen in a young woman, during the past year, who had had an abdominal operation through a low median incision six years ago. This was done under ether and the net result was that she is sure she was made much worse by the operation, and that her lungs were left weak after this operation which she persistently blames on the ether.

Not having enough, however, she had another abdominal section two years ago, through a high pararectal incision, and the operator evidently took council of her history of trouble with ether and did his work under spinal. But, the young lady was not to be outdone by any doctor, so she says she has developed paraplegia, both motor and sensory of her lower limbs, which she is sure is due to the effects of the spinal anesthetic solution injected, and is now trying to find a doctor to agree to this or do another operation. The facts in this case are: she is neuretic and should never have had any type of surgery except that demanded by an acute emergency.

In connection with this type of case, one would do well to study Hugh Cabots article in March, 1923, issue of Medical Clinics of North America, under the caption of "Those Painful Women." Cabot shows clearly the type I have referred to and points out the injury done these patients by useless abdominal operations and the disrepute brought upon surgery by them.

In connection with the cases above mentioned, I have records of more than 2,000 persons coming for some type of diagnostic examination during the past fifteen years, and the significant facts connected with them in connection with this paper are the number found to have organic pathology in their gastro intestinal tracts or its chief appendage, the liver.

The outstanding conditions here are malignancies; what has just been said about conservatism in chronic conditions will have to be modified when malignancies are suspected, in as much as our only chance to save the patient's life is early surgery.

However, gastro intestinal malignancies are intermediate between the urgent acute conditions met which demand immediate surgery and the chronic conditions which demand great conservatism.

My records show that I have diagnosed cancer of the stomach twenty-seven times. Of these, three cases proved to be mistakes of diagnosis, one being empyema of gallbladder with multiple stones in a woman sixty-five years old, one being a pyloric lesion in a man sixty-nine years old, which gave every evidence of malignancy, and was operated upon in the presence of four experienced surgeons, and all agreed that the lesion was malignant and not resectable, and a simple gastro-enterostomy was done and the man is living now four years after the operation, which proves

the lesion was not malignant. The third mistake occurred during 1931 in a man forty years old and gave the greatest deformity of the contour of the stomach I have ever seen. This with his history and physical findings led to diagnosis of organic lesion, probably malignant. The facts were he was suffering from a Vincents infection of his mouth and numerous carious teeth, the clearing up of which relieved him and subsequently he has shown normal functional and organic gastric conditions.

After deducting the three cases of known mistakes, I have records of twenty-four persons diagnosed gastric cancer.

The fate of these patients is the point of greatest interest. One only is living after five years, and in fact, is the only one who survived one year from time of diagnosis. The one living patient had partial gastric resection and is the one bright spot in a dark field.

The fact that only one lived a year after diagnostic examination, and that it was recognized at examination that the cases were hopeless is the significant thing about them.

In addition to the above, there was found twenty-three cases of cancer of the colon or rectum and none of them survived a year.

In connection with cancer of the colon, it is of interest to know that four of these patients came to the operating table because of intestinal obstruction, which depended upon their neoplasm, which had not been suspected before operation.

Also, I have records of thirteen cases of cancer of the liver, and its presence was not known or very strongly suspected before operation in but four cases; however, the abdomen was opened on diagnosis of gastric, or cholecystic disease.

This group of patients has been gleaned from fifteen years work, and many of the operations have been done by others away from my work, but no case is included in which I did not know the operative findings.

It is said by Coley in American Journal of Surgery for December, 1931, that more than one-half of all cancers are within the abdomen. Horsley says that statistics show that 100,000 people die annually in the United States from cancer, and if one-half of these are in the gastro-intestinal tract, then the enormity of our responsibility to detect them early enough for the victims to have a chance of life through surgery, which is their only hope, is evident. Alvarz summary of the last forty physicians who had been examined at the Mayo clinic should be studied in this connection, for it shows clearly that the physician is as slow to recognize cancer in his own gastro-intestinal tract as he is in that of his patient.

What can be done about this condition? That is the question which is squarely up to the medical profession as a whole, and to each and every physician as an individual.

What means are available to weed out the chronic cases, which do not need surgery until after the most exhaustive diagnostic work, and at the same time discover malignancies early enough to save the lives of more of the 50,000 people who are dying annually from this condition in the United States?

Caramans statement that 95 per cent of all gastric tumors are cancerous, and that the only hope of detecting them in time to help the individual is routine X-ray examinations of the gastro-intestinal tract once or twice annually, is the ideal method of reducing this loss of life, but we all know that this is a long way off.

However, if we will remember that most cancers of the gastro-intestinal tract develop rapidly in individuals usually past forty years of age, and that it is better to make 100 unnecessary diagnostic examinations than to do one unnecessary abdominal operation, and better to do 100 unnecessary operations, if based on strong evidence of cancer, than to lose one useful individual, then we will begin to have early and repeated X-ray examinations of the gastro-intestinal tract in all suspicious cases, for here alone is our only chance to detect these conditions, and if made by competent men with adequate equipment, most of these conditions could be detected when the patient has a chance to live.

In summarizing, I would like to say; that if we as a profession are to do our greatest duty in this particular field, we must learn to recognize at the bedside at the earliest possible moment, the acute surgical conditions mentioned, which furnish the greatest mortality, and the remedy for which is early recognition, and early operation.

Primarily this responsibility lies heaviest on the family physician, for he is usually the

first to see the patient and his recognition of the condition often means life or death for the patient. He must learn to early differentiate an abdominal condition from a condition in the respiratory tract by physical means such as the type of respiration, the stethoscope, etc. He must know that most of the time a urinalysis will differentiate a urinary tract infection, by finding or not finding pus and blood cells, and early recognize the difference between dysuria and abdominal pain.

After this, the responsibility is shifted to first the diagnostic consultant, and if he happens to be the surgeon, in the case the gravest responsibility rests upon him. For we must first of all determine if we do or do not have an organic lesion in the abdomen, amenable to surgery, and if so, above all know it is NOT a malignancy, which can be known today only through careful X-ray examinations. He must remember that a large per cent of these cases are reflex from pathology in other parts of their body, and that a large per cent of them are nervous individuals in whom no pathology can be demonstrated, and that in these individuals untold harm may be done them and equally as great damage done the profession as a whole and himself as an individual by doing unnecessary surgery on persons who do not need it.

Equally as urgent is our need of surgeons who will positively not operate questionable chronic cases without first exhausting every diagnostic means available to determine if the case is really one of operative need.

In this connection, I would like to say that it will be well if we follow the rule of The Nazarene when He said: "Whatsoever you would that men should do unto you, do ye even so unto them." Hippocrates met this measure when he said, "I will abstain from whatever is deleterious and mischievous." Matas met it when he spoke of the soul of the surgeon. Sir Berkley Moynihan met it when he describes his operating room as a sanctum, saying it should be as sacred as the alter of any prelate, and we, of the Arkansas Medical Society, can do no better than to meet it in the conditions discussed in this paper.

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DISCUSSION

DR. DEWELL GANN, JR., Little Rock: Dr. Wilson is a member of the Committee on Cancer Control. What I would like to emphasize has reference to cancer. It would be rather difficult for any one to try to discuss his paper because it has been so cleverly written and covered that all the points have been well taken. However, malignancy of the stomach and bowel is responsible for about 50 per cent of the deaths from cancer and I think that possibly, in addition to what I said yesterday concerning the treatment of malignancy, I should mention the acidosis treatment of malignancy to you today. It consists of the administration or the inhalation of pure oxygen plus four and a half per cent carbon dioxide for a period of from two to four hours daily. Here we are using as a minimum two hours daily, giving three forty-minute periods and have not advanced the inhalation of the oxygen and the carbon dioxide beyond this point. Whether or not it will become necessary, we do not know.

In addition to the inhalation of the oxygen and carbon dioxide, we are administering hydrochloric acid three times daily before meals, from 10 to 35 drops. The ultra-violet rays or the so-called Alpine sun is also used daily for the purpose of stimulating the reticulo-endothelial system. And in addition to the intensive deep therapy treatment of the primary lesion, we propose to give fifteen minutes of deep therapy X-ray weekly.

Now, we do not understand why these cases do so well but, from our study of the literature and with personal contact with men who have been using these treatments, we see the recovery of cases of advanced cancer of the stomach considered incurable, advanced metastatic carcinoma following the removal of the breast, advanced esophageal tumor producing complete obstruction and many other interesting features that I am sure will interest you.

This is not something you cannot do. You can do it as well as we can. The principal difficulty is in the administration of the gas. In Baptist Hospital they have an oxygen tent which is admirably arranged for taking care of this particular situation. Dr. S. F. Hoge of Little Rock, who is chairman of the State Committee of the American Society for the Control of Cancer, is doing some experimental work, which I am sure will interest you and may be presented to you a year from now, and that is the oxygenation and the carbon dioxidation of the blood, and if he succeeds in these experiments it may be possible very soon for us to send you upon request a treatment which we hope and desire will reach the tumor cell, and bring about its regeneration.

DR. W. T. LOWE, Pine Bluff: There is just one phase of this question of diagnosis of the surgical abdomen that I would like to mention and that is the acute abdomen and the troubles that we out in the smaller towns usually encounter when we run across these cases. They are

hard to diagnose and there is usually one thing that has brought about this difficulty in diagnosis and that is that these patients usually have been given by their friends, members of the family or the neighbors who always rush in to give advice, purgatives which have usually fortunately been vomited. Then, too often, I hate to say, the doctor gives a purgative and waits to see what will happen and, by the time the patient is brought into the hospital, a great many of the symptoms have been destroyed, have been masked by general distension of the abdomen and a very extensive degree of dehydration of our patient. If we would only realize that in the acute abdomen, according to my feeble way of thinking, it is just as silly to give strong purgatives and decidely more detrimental to give them than it would be to give strong purgatives in treating measles or whooping-cough, and in so doing you will often take away every chance the patient has for operative procedure if one is later found to be necessary. Now when we see patients in this condition I don't think there is any place in medicine or in surgery where the doctor is called to account which taxes his ingenuity, sound and sober thinking, as the patient that is brought in in a condition of this kind and where an operation is very likely needed, to know just when to do it. We don't know just exactly what is the pathology but we know that there is some trouble there and it is too often that we rush in to do it instead of putting the patient to rest a while, giving the patient a great deal of fluid and getting the patient in that condition where he can stand the extensive investigation that often has to be made when opening one of these cases of acute abdomen.

DR. WILSON, in closing: I thank the gentlemen for their discussion of the paper. What Dr. Gann said had reference to the treatment of cancer. My paper was primarily a diagnostic paper and I made no reference to any type of therapy except in a general, statistical way. It is well we should know these things and above all it is well we should make a diagnosis because, without a diagnosis being made of the condition present, proper therapy will never be applied.

HYDROTHERAPY IN THE TREATMENT OF ARTHRITIS*

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Leo N. Levi Memorial Hospital, Hot Springs.

The oft-quoted, and frequently misquoted, Wm. Osler, is credited with the statement, when asked "What is the best thing to do for arthritis?" "When you see a case of arthritis come into your office, the best thing to do is to jump through the nearest window." Happily, this attitude of helplessness and hopelessness toward the arthritis patient no longer exists in the medical profession, thanks to the notable advances in our knowledge of arthritis made by students of the subject in the past decade.

The American Committee for the Control of Rheumatism, which is an outgrowth of the International Committee Against Rheumatism, has helped to establish the value of certain definite lines of treatment for arthritis. It has also established the classification of arthritis cases into two great groups, the atrophic or proliferative type and the hypertrophic or degenerative type, although many outstanding American authorities on arthritis still cling to the British classification of rheumatoid arthritis and osteo-arthritis. Furthermore, under the present conception, the term arthritis is understood to embrace the rheumatoid disorders which includes neuritis, fibrositis, bursitis, myalgia and similar diseases. It is believed that where these conditions exist in the absence of traumatic or organic disease, they are in most cases due to the same general causes and respond to the same general lines of treatment as cases with articular involvement. In other words, sciatica, lumbago, and arthritic joint disease all represent the same disease process, the only difference being in the nature of the tissue involved.

The causal relationship of focal infection to most types of arthritis seems to be definitely established. The search for a specific germ goes on apace, and bids fair to yield definite results in the near future. Hand in hand with the culture of various organisms from the blood of arthritic patients, there have been developed various types of specific treatment in the form of vaccines, immunogens and bacterial nucleoproteins which in many cases appear to have a definitely curative action.

The distinct bearing which improper diet has in predisposing an individual to arthritis, and the need for limitation of carbohydrates and high calorie foods in general to offset the tendency to hyperglycemia in arthritic patients, is another notable forward step in our conception of arthritis.

The drug treatment of arthritis has, quite correctly, been relegated to the discard, thus limiting the therapeutic approach of the physician treating arthritis patients, to three broad lines of attack.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

1. Locating and eradicating every possible source of infection, and building up the patient's physical resistance.
2. Massage and physiotherapy.
3. Hydrotherapy.

And I may say at the outset that if these three principles of treatment are applied promptly and intelligently and thoroughly and persistently to every case of arthritis or rheumatoid disease, most cases of arthritis will be cured or greatly benefited. However, since the subject of the treatment of arthritis is too extensive to be considered at this time, we will concern ourselves only with a discussion of the oldest and perhaps the most effective single agency in the treatment of arthritis, hydrotherapy.

By hydrotherapy is meant the art of applying water in the treatment of disease. It implies the internal as well as the external use of water, whereas the term balneotherapy is more correctly reserved for the external application of water at varying temperatures and modalities. Hydrotherapy is one of the most ancient arts in medicine, and while formerly it was used largely upon an empirical basis, efforts are continually being made, with a great measure of success, to reduce it to a science.

In arthritis, the proper application of hot water in its various modalities, can be made to exert a variety of reactions which might be classed as local, mechanical and constitutional. Locally, by means of hot packs, hot sprays and hot douches, there is produced a state of hyperemia and muscular relaxation with consequent relief from pain. Furthermore, the vascular dilatation aids in the resorption and removal of unorganized inflammatory deposits, and also promotes circulation in the capillaries. Pemberton has established the fact that the primary pathological change in an arthritic joint is due to interference with the capillary circulation. The value of increased capillary circulation in these cases is, therefore, obvious.

Mechanical effects may be produced by correctly applied hydrotherapy by means of immersion tub baths and by therapeutic pools. The relief from muscular spasm and pain in the tub, and the splinting action of the water accompanied by passive motion and underwater massage, permits a wider range of motion to the diseased joint. Therapeutic pools which have long since established their value in the treatment of muscular atrophy following poliomyelitis, have rapidly demonstrated their efficacy in the treatment of arthritis. Exercises may be carried out by the patient with much greater ease while immersed in the pool, owing to the assistance and support which the atrophied muscles receive from the buoyancy of the water. Measures which improve mobility of the joints are naturally of great importance in preventing ankylosis and muscular atrophy.

The constitutional action of water will naturally vary with the composition and ingredients of the water. Taken internally, some effects no doubt arise from the mineral salts which the water contains. The diuretic and solvent action of the water is also of great benefit. By far the most pronounced constitutional effect results from the external application of the water. These effects were personally investigated by the writer a few years ago at the Levi Memorial Hospital at Hot Springs, Arkansas. The hospital has a well-equipped hydrotherapy department, supplied with the natural Hot Springs water. This water issues from the spring-bearing area on the United States Reservation at an average temperature of 140 degrees F. A group of patients were set aside for study and the body temperature, white cell and differential count, phagocytic index and plasma volume, were determined on each patient before he entered the bath. He was then given a tub bath at 98 degrees F. for ten minutes, after which he remained in the vapor or steam cabinet for three minutes. Following this he was placed on a cot in the hot room and wrapped in sheets wrung out of the hot water. He remained in the hot room for fifteen minutes, after which he was given a shower bath at 98 degrees F. and returned to his bed. This entire procedure comprises a usual Hot Springs Bath although, in actual practice, these modalities are frequently varied to meet some special indications. The tests which were made before the bath were repeated, and th following interesting results were noted.

Body Temperature. It was found that there was a rise in each patient's temperature of from one to two degrees Fahrenheit, following ten minutes immersion in water at 98 degrees Fahrenheit. An additional rise of one to two degrees occurred after three min-

utes in the vapor cabinet. Ten minutes in the hot packs produced no additional rise in temperature. The patient's temperatures, which ranged from 100 degrees to 102 degrees after completion of the bath, gradually returned to 98.6 degrees in three to five hours.

Leucocyte and Differential Count. In all cases there was found, after the bath, a five to fifteen per cent increase in the total white cell count, with a five to ten per cent increase in the polymorphonuclear variety.

Plasma Volume. The plasma volume remained constant during the bath, the relation of plasma to the solid elements of the blood being maintained by giving the patients sufficient water to drink to avoid dehydration by perspiration. For this reason, the leucocytosis could be regarded as absolute rather than relative, that is, there was an actual increase in the white blood cells, rather than a concentration of the cellular elements of the blood due to dehydration.

Phagocytic Index. It was found in most patients that the phagocytic power of the blood was increased following the bath. Before the bath the average number of bacteria ingested by 100 leucocytes was about 300, whereas after the bath 100 leucocytes would ingest close to 600 bacteria.

Comment

It will be seen from the foregoing that hydrotherapy is of great service in the treatment of almost all forms of subacute and chronic arthritis, as well as many of the rheumatoid disorders, for the following purposes:

1. For stimulating the immunizing mechanism and for aiding the absorption of inflammatory products. Its action resembles to some extent that of protein shock.
2. For stimulating capillary circulation in affected joints and for promoting elimination through the skin (diaphoresis) and through the kidneys (diuresis).
3. For the relief of pain.
4. For aiding (by the relief of muscle spasm and by obviating gravity) the re-education of function in joints and muscles stiffened or deformed by previous inflammation.

Book Reviews

Public Health Organization. Report of the Committee on Public Health Organization, E. L. Bishop, M. D., Chairman, White House Conference on Child Health and Protection. Published by The Century Company, New York. Price, $3.00.

This report of the Committee on Public Health Organization of the White House Conference on Child Health and Protection is based upon an extensive survey of the organizations, official and non-official, in the United States which are devoted to protecting and promoting the health of the people.

The committee finds that the whole concept of public health service is changing. No longer is public health service concerned primarily with the control of communicable disease. Today public health programs are designed actively to promote mental and physical health as well as to prevent disease.

This evolution of public health is creating a constantly increasing need for more complete and more efficient organization to safeguard and promote the health of our people.

The committee considers the administrative problems and relation of the various units of public health service, from the federal organization to the county unit, in terms of the future, and takes up other important phases of the question such as the training of personnel, administration of child health work as a part of official health programs, and health aspects of food control.

The Diagnosis and Treatment of Brain Tumors. By Ernest Sachs, A. B., M. D., Professor of Clinical Neurological Surgery, Washington University School of Medicine, Saint Louis. Two Hundred Twenty-four Illustrations, including ten in colors. Published by The C. V. Mosby Company. Price, $10.00.

In this book will be found a complete method of how brain tumors should be studied, and what its treatment should be.

The first chapter is devoted to the surgical anatomy and surgical physiology of the nervous system. In the succeeding six chapters the steps by which a diagnosis is reached are discussed. In chapter eight, the principal diseases which are most frequently confused with brain tumors are considered. The final chapter is devoted to the operative technic and post-operative care.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

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WILLIAM R. BATHURST, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Communications

McGehee, Ark., Sept. 3, 1932.

Dr. W. R. Bathurst,
Secretary Ark. Medical Society,
Little Rock, Ark.

Dear Doctor:

I am enclosing a copy of the agreement reached at our meeting with Dr. Garrison, Secretary State Board of Health. The following is a copy of the statement the applicant for inoculation will be required to sign:

This is to certify that I am unable to pay for this inoculation.

Name ..... Date .....

I believe that this will be satisfactory for Desha County and will eliminate the ones that are able to pay.

Sincerely yours,

H. T. Smith.

AGREEMENT

August 31, 1932.

Proposed tentative policies of the Desha County Health Unit, following a meeting of the State Health Officer, Doctor C. W. Garrison, and the County Health Officer, Doctor J. C. Miller, with Doctor H. T. Smith, Doctor V. McCammon, and Doctor Howard Rand, members of the County Medical Society, and County Judge J. M. Smith, Tuesday night, August 30, 1932.

1. The unit will continue to advertise as heretofore all immunization clinics, indicating the time and place, setting out the following:

"Immunizations given to those not able to pay for same. Those who are able to pay are requested to report to their family physician. A fee of 10 cents will be charged for smallpox vaccinations, and 25 cents for diphtheria toxoid, or toxin-antitoxin, to cover costs of same. Also a sign shall be posted in a conspicuous place at each clinic bearing the following: This clinic is for the benefit of those unable to pay the family physician for this service."

2. Where there is any question as to those able to pay, applicants applying for immunizations will be requested to sign a statement that they are unable to pay a physician for same.

3. Provided that this shall not apply in any community where a physician or physicians do not object to the policy now in practice. Provided further, that this shall not apply to the colored race except on plantations where the management will make arrangements to pay a private physician for his service.

4. Provided further that item one shall not apply to the remote sections of the county. Where diphtheria or typhoid fever occurs, if policies in effect obstruct the early inoculation or control of the same, all restrictions may be removed by conference agreement between the physicians and the health personnel.

5. That this agreement shall not apply against smallpox vaccinations, as the law requires the health officer to vaccinate against smallpox, free of charge, where it is requested.

6. The members of the Desha County Medical Society agree to cooperate with the County Health Unit in reporting notifyable diseases, in accordance with the requirements, to the County Health Officer. File birth certificates with the local registrars and sign death certificates promptly.

7. That when physicians fix a nominal immunization fee not to exceed one dollar per complete immunization, biologicals may be secured through the County Health Officer at the State contract prices.

Desha County Medical Society
By H. T. Smith, M. D.

Desha County Health Unit
By J. C. Miller, M. D.

Editorial Clipping

LIVING DANGEROUSLY

From time to time there have appeared editorials in this Journal on the subject of malpractice, urging physicians to protect themselves by membership in the County Medical Society, which also entitles them to defense by the State Medical Society in the event of threatened suit. We have always realized, however, that those who are apt to read editorials are already protected and not in need of any advice along that line, but it seems impossible to reach those who do not consider membership in a medical society worth while. Every now and then cases come up in which doctors have allowed their membership in their county society to lapse and probably have later on resumed membership; but in the interval trouble has arisen. Those who are members of the Michigan State Medical Society might perform a very worthy service by urging any friends outside to join their County Medical Society, if nothing more than for the protection it affords. This however, is only one advantage of membership. There are also the professional advantages gained by contact with other members, as well as the opportunity to come in contact with the best medical thought.

We have also touched upon the matter of speaking disparagingly of the results of another doctor's treatment. A doctor's reputation is as much an asset though intangible as any material resource he may possess, and it therefore should not be injured by disparaging word or gesture.

The editing of a Journal such as this calls for a certain precautionary attitude which few recognize apart from the editor himself. We have had occasion to delete expressions and statements in contributed papers which, even though true, if published, would be liable to cause trouble. It is an expensive and uncertain matter to be called into court even to prove that one is right. In the matter of libel, discretion is the better part of valor. Brosnan, the counsel for the Medical Society for the State of New York, writing in the New York State Journal of Medicine, quotes the libel law, which defines libel as "A malicious publication, by writing, printing, picture, effigy, sign or otherwise than by mere speech, which exposes any living person, or the memory of any person deceased, to hatred, contempt, ridicule or obloquy, or which causes, or tends to cause, any person to be shunned or avoided, or which has a tendency to injure any person, corporation or association of persons, in his or their business or occupation is a libel."

This has been carried so far as to be construed to apply to biographies even of persons long dead, if their descendants felt it worth while to prosecute.

Another matter on which editors must be on their guard is that of violating copyright. If the writer of a paper, for instance, finds it advantageous to make a lengthy quotation, he will do well to write the publisher or au-

thor of the article for permission. This is usually granted. However, to quote at length without this permission is violating the law of copyright and one becomes amenable to the penalties of the law should the owner feel it expedient to prosecute. Copyright privileges cover twenty-eight years, so that in quoting from works published beyond this time, mere mention of the source of the material is sufficient. Recent books, however, are very particular in the matter and stipulate that no part of the book may be quoted without the permission of the publisher. With this permission given it is customary to acknowledge it by a brief line to that effect.—*The Journal of the Michigan State Medical Society.*

Personal and News Items

Dr. Val Parmley of Little Rock has been elected a fellow of the American College of Surgeons.

Dr. and Mrs. J. P. Sheppard of Little Rock have returned from an extended trip to Canada, and on their return home they visited in New York and Chicago.

The Eighth Councilor District Medical Society will meet in Little Rock, Monday, October 3rd. The surgical and medical clinics will be held at each of the following institutions: The Missouri Pacific Hospital, St. Vincent's Infirmary, the Baptist State Hospital and the Little Rock City Hospital.

Surgical clinics will be from 9:00 to 10:30 a. m., medical clinics from 10:30 to 12:00 in each of the above hospitals. The general meeting will be held at the Baptist State Hospital from 3:00 to 6:00 p. m. Dinner will be served to all local and visiting doctors at the Baptist State Hospital at 6:00 p. m.

A complete detailed program will be mailed at a later date.

All doctors are urged to attend this meeting. A special invitation is extended to all members of the Arkansas Medical Society.

The Tri-County Medical Society, composed of Union, Ouachita and Columbia counties, will meet Thursday night, October 6, at Camden. The speakers for this meeting are Dr. Walter Sistrunk, formerly of the surgical staff of the Mayo Clinic; Dr. Will H. Mock, President of the Arkansas Medical Society, and Dr. E. L. Sanderson, Superintendent of the Shreveport Charity Hospital.

Dr. R. Q. Patterson of Little Rock is taking a post graduate course in the New York Skin and Cancer Hospital, New York City.

Among the Arkansas physicians who visited in Little Rock recently were: Drs. S. S. Henry of Smackover, B. C. Clark of Lake Village, R. P. Woods of Altheimer, R. H. Whitehead of DeWitt and F. J. Scully of Hot Springs.

AMERICAN COLLEGE OF SURGEONS MEETING

The twenty-second annual Clinical Congress of the American College of Surgeons will be held in St. Louis, October 17-21, with headquarters at the Jefferson Hotel. Dr. Franklin H. Martin, Director-General of the College, informs us that an instructive program of operative clinics has been prepared by the local Committee on Arrangements of which Dr. Evarts A. Graham is chairman.

Hospital standardization conferences under the direction of Dr. Malcolm T. MacEachern will be held during the first four days. Four special programs have been prepared dealing respectively with fractures, curability of cancer, industrial medicine and traumatic surgery, and the teaching of surgery and the surgical specialties. Medical motion pictures will be on daily exhibition.

On Monday evening the president, Dr. Allen B. Kanavel, will present his retiring address, "Intangibles in Surgery," and turn over the robes of office to the incoming president, Dr. J. Bentley Squier, who will deliver his inaugural address, "Fundamentals of Specialism." The John B. Murphy oration in surgery entitled, "Pillars of Surgery," will be delivered by Sir William I. DeConrey Wheeler, M. S., F. R. C. S. I., Dublin, Ireland.

On Wednesday evening a Community Health Meeting will be held with brief instructive talks dealing with personal health and hospital matters.

On Friday evening the convocation will be held for the incoming fellows, and the Fellowship address on "Some New Things in Physics" will be delivered by Robert Andrews Millikan, Ph.D., LL.D., Sc.D., Nobel Laureate. Dr. J. Bentley Squier will deliver the presidential address entitled, "The American Col-

lege of Surgeons—Twenty Years of Ambitious Effort."

Among the features of the evening meetings will be the oration on fractures by Dr. Philip D. Wilson and the oration on industrial medicine and traumatic surgery by Dr. Frederic A. Besley. A special program on ophthalmology and otorhinolaryngology will be held at the Statler Hotel and there will be clinics on these subjects during the entire week in the St. Louis hospitals.

Among the other foreign visitors will be Sir George Lenthal Cheatle, London, and Dr. Jose Goyanes, Madrid.

Obituary

MANLEY, ROBERT NEWTON—Dr. R. N. Manley of Clarksville, aged 48, died August 27, 1932, in Ponaford, Minn., where he had accepted a position with the Department of the Interior Field Service.

DICKENS, GEORGE W.—Dr. G. W. Dickens of Leslie, aged 55, died August 19, 1932. Dr. Dickens was born at Mayflower, Faulkner County, May 31, 1877. He had lived in Leslie since his marriage in 1909.

He is survived by his wife, one daughter, Mrs. Georgia Brinley of Muse, Pa., and two sons, Jack and Judson Dickens of Leslie.

County Societies

OUACHITA COUNTY

(Reported by R. B. Robins, Sec.)

The Ouachita County Medical Society met in regular monthly session Thursday night, September 1, at the Orlando Hotel in Camden. A banquet preceded the scientific program. Twenty physicians were in attendance. The program was furnished by the Highland Clinic of Shreveport, Louisiana. The following scientific program was given:

"Food Allergy" by Dr. W. H. Browning.

"Cases of Appendicitis That Should Not Be Operated On" by Dr. John Hendrick.

"Endocrinology" by Dr. T. P. Lloyd.

"Renal Ptosis" by Dr. Barron Johns.

The Auxiliary to the Society also met at the Orlando Hotel for supper and afterwards the ladies had a theater party.

LAWRENCE AND RANDOLPH COUNTIES

(Reported by H. R. McCarroll, Sec., Lawrence County)

The Lawrence and Randolph County Medical Societies met at Portia, August 9, 1932, with Dr. W. J. Robinson as host.

The following members and their families were present: Dr. A. G. Henderson, Dr. and Mrs. W. J. Robinson, Dr. and Mrs. C. C. Ball and son, Dr. and Mrs. J. C. Hughes, Dr. and Mrs. T. C. Neece, Dr. and Mrs. G. A. Warren, Dr. and Mrs. W. S. Kendall and children, Dr. and Mrs. T. C. Guthrie, Dr. and Mrs. H. R. McCarroll and daughter, Miss Bernice, Dr. M. A. Baltz and Miss DeClerk, Dr. and Mrs. W. W. Hatcher and Mesdames, Annie Davis and Ora Ashburn, and Dr. and Mrs. Edward Dunn.

The program was as follows:

"Review of Recent Advances in the Knowledge and Treatment of Malaria" by Dr. M. A. Baltz of Pocahontas.

"Urticaria and Treatment, with Presentation of Case" by Dr. T. C. Neece of Walnut Ridge.

Following the meeting, watermelons were served. For the past several years it has been the custom of Dr. Robinson to entertain the Society with a watermelon festival, this being the annual occasion.

DALLAS COUNTY

(Reported by J. E. M. Taylor, Sec.)

A meeting of the Dallas County Medical Society was held with a dinner Thursday night, August 25, at the Kilgore Hotel in Fordyce.

Those present were: Alan Cazort and M. C. Hawkins of Little Rock; A. R. Kelly and J. S. Shepherd of Sheridan; W. H. Simmons of Pine Bluff; T. E. Rhine of Thornton; C. T. Black of El Dorado; C. J. March, A. B. McLaughlin, J. P. Sheriff, W. P. Ward, E. E. Estes, W. S. Ellis of Fordyce; H. A. Cheatham of Princeton; A. M. Stuart of Manning, and J. E. M. Taylor of Sparkman.

The program was as follows:

"Algeric Diseases" by Dr. Alan Cazort.

"Vulvovaginitis" by Dr. M. C. Hawkins.

A round table discussion followed.

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Original Articles

THE OPHTHALMOLOGIST'S INHERITANCE*

O. H. KING, M. D., Hot Springs

About the middle of the last century a young Englishman who had had a few months in English mercantile life, following his graduation, visited this country. He had been depressed by the narrowness of his life in England. He was impressed by the opportunities offered in America, and said "This is the country for me." Later, to his only child he said, "Son, don't make the mistake I did; don't enter business; don't be a white collar drudge. Have your craft in your hands, or your profession in your head; be a painter, be a lawyer, be a parson; but, best of all, be a doctor, for you will acquire medical traditions, and, if you are true to them, its practice will satisfy the cravings of your soul. For the thought of all trade, be he clerk or financier, is profit to self; while the ethic of the true physician is achievement that chiefly benefits another, even all humanity. The merchant, at most, can but make a fortune, which is ephemeral, but the physician can make a name which can endure."

The acquiring of medical traditions; the ethic of the true physician, and the wealth of medical and surgical knowledge—these make up a large portion of the inheritance of all physicians. The true measure of our success is not by the yard-stick of the dollar, but by how truly we have lived up to our traditions, how faithfully we have adhered to the ethic of the true physician, and how well we have used our knowledge for the benefit of humanity.

In presenting my subject I shall deal with that portion of the wealth of knowledge that applies particularly to the ophthalmologist as a part of his inheritance. The medical traditions and the ethics of the profession being equal to all physicians. Those of us who have specialized in certain fields have taken upon our shoulders added responsibilities. We have announced to the profession at large that we are qualified by our special training to do certain work more efficiently than the average. This being the age of specialization, what I have just said applies to the large majority.

Specialization is almost as old as medicine. The idea is certainly not the outgrowth of modern medicine. Even among the physicians in Egypt during the second and third centuries, B. C. there were specialists. The Egyptians employed special physicians for different parts of the body, which makes our present day specialists look rather old-fashioned. Among the special physicians were many skilled ophthalmologists.

However, modern ophthalmology could be said to have received its greatest impetus to development when the ophthalmoscope was invented. From then on there has been added interest in, and knowledge of the subject. This wealth of knowledge is the inheritance of the student in ophthalmology, and through him, it should be of great value to you.

It would be impossible, in a paper such as this, to thoroughly cover the development of ophthalmology, even since the advent of the ophthalmoscope. I shall try to give you some of the interesting facts. Many workers, within and outside the field of ophthalmology, strictly speaking, have contributed to this wealth of knowledge. It would be impossible to name all of them, and entirely out of the question to try to give the proper credit to each one. Honor has been done them by many writers, and a compilation of the writings about their work and their contributions to this specialty would make an interesting history of ophthalmology.

The eye has been called the window of the soul. It is certainly a window through which many varying and interesting pathological

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

conditions can be viewed. Frequently a diagnosis can be made, or verified, a more exact prognosis arrived at, and sometimes the results of treatment can be viewed by looking through this window. The effect of some general pathological conditions upon the function of the eye, and its appendages, can be studied, and the information gained thereby is invaluable.

The diagnosis and treatment of eye diseases, the correction of refractive errors, and the information to be gained from the eye regarding general pathological changes that affect this organ and its functions, must, of necessity, take into consideration optics, optometry, physiology and pathology of the eye, ocular surgery, and ocular semiology. Workers in the field of optics have contributed their share by their studies of the nature and properties of light. The theory of colors; changes which light suffer in its qualities, or in its course, when refracted, or transmitted through bodies, or when it is reflected from their surfaces, has been determined. The study of the structure of the eye, with reference to the effect it has upon light waves, has resulted in certain laws of vision. Instruments of introspection have developed, as telescopes and microscopes. The theory of the foci of lenses and mirrors. In fact, the behavior of light waves under all conditions.

There are certain fundamental principles to guide the practitioner upon, and the student of the eye, in the practical work of refraction. These principles are known as physiological optics, and broadly speaking, include: Ocular optics; monocular vision, and methods of objectively and subjectively investigating it; qualitative and quantitative determination of the retinal functions; binocular vision and ocular movements; binocular vision and disorders of the motility; retinal and chiasmal images.

Von Helmholtz divided his classic Handbuch der Physiologischen Optik into three general portions: (1) The passage of light into the eye, or the dioptrics of the eye; (2) The functions of the retina; (3) the interpretations and appreciation of the outer world through the sense of sight.

Ways and means of measuring certain functions of the eye, and the correction of some of the defects of function are known to us as optometry. This includes measurement of the range of vision, the measurements of the visual powers in general (including the acuteness of the perception of form, of light, and of colors), the measurement of the extent of the field of vision, the measurement of the accommodation and refractive states of the eye, and of the position and movements of the eyeball. The measurement of visual acuity, and the fitting of glasses to correct visual defects.

The physiology of the eye takes into consideration much that comes under the head of the aforementioned subjects. Without the aid of them the normal function could not be understood. In addition to this contribution, much has been added about the function of the integral parts that go to make up the eye as a whole. An understanding of this function with the appearance of the normal structure gives the foundation for an adequate mastery of the pathology. Much interest in intra-ocular pathology existed prior to the advent of the ophthalmoscope, but there was no opportunity for study in the living subject. Since 1851, when Von Helmholtz gave to the medical world its first ophthalmoscope, a voluminous store of knowledge of the normal and abnormal within the eye is at hand for our use. Perhaps no other diagnostic instrument has contributed so much information as has the ophthalmoscope. However, the slit-lamp and corneal microscope bid fair to open a very large field of information regarding the physiology, and some of the pathological conditions. Some of these can be better understood by this new means of examination. An understanding of the function of the eye, a knowledge of its pathology, has made the development of modern ophthalmological surgery possible. The advance in this phase of the work has been in keeping with the general progress in medicine and surgery. I believe I would be safe in saying there is no other organ in the body as small as the eye, in comparison to the body as a whole, that furnishes as large and as varied a field of surgery. There are a host of individual surgical procedures. In most cases there are many different ones to accomplish the same purpose. This is to some extent necessary. One example, to make my point clear. In the surgical relief of glaucoma there is not a single operation that would be applicable to all cases. The many different operations have been accurately described, and the conditions indicating given procedures are given in detail.

It is a known fact that certain pathological changes within the eye, and some of the disturbances of function and motility are but symptoms of a systemic disease. Frequently they are indicative of damage or injury to other anatomical parts from trauma, or diseased processes. A store of useful and valuable information is available in the evaluation of ocular semiology.

Is this inheritance being used to its best advantage for the benefit of humanity? I shall try to answer this question briefly.

In the treatment of diseases of the eye, and for correction of manifest defects in function, I would judge that this store of knowledge is being advantageously used.

On the other hand, it is my opinion that much more can be done in the prevention of eye diseases and defects of vision. Herein is the opportunity for the general practitioner, and with the opportunity, a certain degree of responsibility.

From two to twenty might be called the most important eye age. It is important from the standpoint of development, and because it is a fact that during this period, in the average person, more eye work is required.

The average adult realizes what an important asset good vision is, and, as a rule, immediately investigates any defect he detects. This responsibility cannot be left with the child, or young adult. They do not realize that the eyes are one of their greatest assets. If the eyes look normal parents take it for granted that they are so, whereas a slight defect existing early in life may become greater day by day. My plea is to look for these defects before they are manifest to the casual observer.

It is true that minor refractive errors can, and frequently do increase if left uncorrected. This is especially true in the child. Errors of refraction, if properly corrected when the patient is young, tend to get less as the child develops. Glasses worn in early life to correct minor errors tend to correct them, and frequently, if left uncorrected, these errors increase and cause the patient to be handicapped or at least, dependent upon glasses for the rest of his life.

When a child's eyes cross it usually indicates that a refractive error is present. *At once* is the best time to have the error corrected. In these cases the wearing of proper glasses corrects the strabismus and allows the eyes to develope equally. Too often, on the advice of friends, and sometimes on the advice of the family physician, the parents are told that the condition may correct itself, to wait and see. While waiting valuable time is lost. Ophthalmologists so frequently see eyes that have been crossed for a number of years, and one eye is often found to be useless, as far as good vision is concerned. Correcting these errors early may prevent later operative procedures which, too frequently, are for cosmetic purposes only. The visual and fusion centers develop early in life. Strabismus interferes with this normal development. We, too, often see these patients after all opportunity of stimulating the development of these centers has passed.

Moderate degrees of myopia—near-sightedness—in the child tend to increase as more eye work is required. Here we always face the possibility of a progressive myopia, with its tendency to complications, which are very deleterious to sight; namely, detachment of retina, choroiditis, and cataract. It is just as important to properly correct myopia as any other refractive error that is accompanied by pain or other distressing symptoms. Too frequently there is very little complaint on the part of the patient with even high degrees of myopia.

Every persistent headache should be investigated to determine whether the eyes may not be an etiological factor. All inflammations of the eyes, no matter how insignificant they appear, should be investigated, and proper treatment instituted.

It has been my experience that with the aid of the corneal microscope and slit lamp, inflammations of the anterior segment of the eye can be diagnosed earlier. In cases such as iritis and irido-cyclitis, the sooner the diagnosis is made and adequate treatment started, the better the prognosis for vision, and the sooner the patient can be returned to work, to say nothing of the prevention of complications and sequlae.

It is a known fact that injury to a part, such as a joint, lays it more liable to inflammatory involvement, if there is a focus of infection present. I am of the opinion that uncorrected errors of refraction predispose the eye to inflammation when focal infection is present. I have had a few cases that seem to substantiate this opinion.

It is the opinion of some workers that light, in the form of undue exposure, plays a part in the development of cataract. This view is held by some ophthalmologists that have had large experience. If there is anything to this theory, it behooves us to properly protect the eyes of children. Some refractive errors are accompanied by photophobia to a degree. There is much room for improvement of the hygienic conditions under which many school children work.

The ideal is a normal eye, capable of performing the required amount of work, under most comfortable circumstances. Every effort should be made to attain this goal. If the eyes are abnormal in vision, or function, no time should be lost in correcting the abnormality. In the most important eye age, as mentioned above, the old adage is surely applicable—"An ounce of prevention is worth a pound of cure."

DISCUSSION

DR. K. W. COSGROVE, Little Rock: I just want to thank Dr. King for bringing up the subject of strabismus or cross-eye and the early correction of cross eyes, it cannot be brought up too often. Some of you remember that I stressed this rather forcibly last year, and I am glad Dr. King brought it up again. On the question of amblyopia, the lazy eye, the eye that children probably do not know they cannot see out of, I think the examinations given in the schools here are of great benefit in catching a lot of these cases of amblyopia which otherwise we would not catch.

DR. H. MOULTON, Fort Smith: The essayist has asked the question: "Is the public getting the benefit they should from this inheritance of the ophthalmologist?" In many cases the public is not getting the benefit. The sale of glasses is so profitable that there are numerous people in every community selling glasses. More than that, in the community where there is not anyone selling glasses there is sure to be some mountebank going through the community proposing to cure all the ills of all the eyes of all the people in that community by selling them a pair of glasses. It is also true that in many cases patients complain to their family doctor of their eyes bothering them, or headaches, and the family doctor says, "Go and see about getting some glasses. Maybe they will relieve you." The patient doesn't distinguish between the ophthalmologist and the glass peddler and he is as apt to pick out one as the other unless the family doctor specifies the kind of man the patient should go to. The one who picks out the glass peddler or the optometrist, or whatever you want to call him, may not suffer any harm but the chances are that he will, because that kind of a glass seller is not able to find out what is the matter with the eye. The trained ophthalmologist does not think so much about getting a profit out of selling that patient a pair of glasses as he does in finding out what is the matter with the eyes. The inheritance of ophthalmology enables the trained ophthalmologist to find out what is the matter with the eye. He looks into the eye with an ophthalmoscope. He may see retinitis, indicating a constitutional disease, nephritis, diabetes, syphilis or tuberculosis. He may see a tumor within the eye. There is in the scientific exhibit a collection showing tumors within the eye, that cannot possibly be seen except by an examination with an ophthalmoscope. He might see the beginnings of a glaucoma which will certainly make the patient blind unless it is relieved.

I think it is the duty of all physicians to see that their patients are examined for eye troubles by competent ophthalmologists. It would be as absurd for a physician to advise a patient who has a cough to go to a druggist and get some cough medicine as for a physician to advise a patient who has eye trouble to go and get some glasses. He should tell him what kind of man to go to, and many a case of blindness will be saved because the right kind of man will employ this inheritance of ophthalmology that was so aptly described.

DR. KING, in closing: I want to thank Dr. Moulton and Dr. Cosgrove for their discussion. I haven't very much to add, but what Dr. Cosgrove said made me think of one other thing. He mentioned the examination of school children. Quite frequently the child is examined too late to catch some errors. If that child were examined at the age of two or three these errors might be corrected and by the time the child reaches school age the error will have been corrected and a great deal of valuable time can be saved and quite frequently valuable vision.

THE GENERAL PRACTITIONER AND FAMILY PHYSICIAN*

B. L. Ware, M. D., Greenwood

In presenting to you this particular subject, possibly it would be wise, reversing the words of the great Cicero in his oration to Catiline, to ask you to bear with me in thus abusing your time and patience.

I make no apology for choosing this subject. Medical practice in some form is probably as old as man. The oldest record dates from the tenth century before the beginning of the Christian Era. Throughout these many centuries the object of the medical profession has been, and is at the present time, to prolong life and alleviate human suffering.

History reveals the fact that many of our ancient brothers used and advocated quite a few of our present day methods. Chiron advocated dieting, pure air and temperate living. Hippocrates in the fourth century, B. C., classified diseases into epidemic, endemic and sporadic. Galen, who lived one hundred and thirty years ante-dating the Christian Era de-

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scribed every bone in the human body, and the functions of the muscles. He recognized two kinds of nerves, sensation and motion; and described the cranial, thoracic and abdominal cavities.

From the day of Hippocrates to the day of Osler our conception of medical practice has always been one of outstanding individuality and personality. We never visualize any period in medicine without associating it with some particular discovery or accomplishment by some particular man. Different decades each have had their different leaders—Pasteur, Koch, Ehrlich, Loeffler, Osler, etc.

Adopting our conception, the layman until recently, has always followed this trend and has looked to the individual practitioner whom he might retain as his advisor and confidant for all the necessary diagnostic, prognostic, and therapeutic aid which he might require.

But, now, as in every other line of endeavor, our patients, I fear, are becoming more communistic than individualistic. For this, there must be a reason, and this reason after a little analysis, we will find within ourselves.

To within the last fifty or sixty years the general physician or surgeon was the medical profession; but, beginning with the days of Pasteur and Lister the avenues opened for advancement in medical and surgical knowledge; through asepsis, antiseptics, and bacteriology the growth of medical learning became so stimulated that its branches, the specialties, became so numerous and so sturdy as to obscure and partly hide the parent tree —the general medical profession. So much so, has it been overshadowed, that in the minds of some, its days of usefulness belong to the past. All talk to the effect that the day of the family physician is rapidly passing away, and that some day there will be only specialist, is pure bunkum. In fact, the contrary is true, and the family physician is now beginning to acquire his own rights—rights indeed to pursue life, liberty and happiness, even as other human individuals.

It is true, the old-fashioned doctor, who was nothing more nor less than a slave or a pack mule for his families, possibly is, and should become extinct. It is not necessary to say, that even today, there is far too much catering to the whims and fancies of a very exacting public, as far as the observance of office hours, making absolutely unnecessary night calls, and so forth, are concerned.

But the real family physician, he who is a member of the County, State, National and other medical or scientific societies, who subscribes for and reads the best medical literature, who is abreast of all progress in the medical world, who knows and employs in his medical practice, products of the laboratory that have passed the state of experimental tests, he who is not carried away with every fad and fancy that so often lures the unwary, the family physician indeed who wisely combines heart and head, he to whom his patient is a patient and not merely a case—such a family physician, I tell you will never pass away.

So long as there are families so long will there be family physicians. Certainly I am not unmindful of the fact that the rural doctors are passing, and if you will pardon the digression I will name a few of the whys. In the country a patient is not a case, but a personality, a friend, neighbor or an acquaintance. Every one knows every one else. If baby Jones cuts a tooth it is known; if Mrs. Jones skips a menstrual period it may be the subject of remark or conjecture; if Mrs. Jones has an ache or a pain it is a thing of interest and open to general discussion; not only is the name of the doctor in attendance known, but everything he does and says is remembered for future mastication and digestion. If doctor so and so treats a case differently from doctor so and so of the next town, and above all, if the results are different, then the fat is in the fire.

No poorly trained doctor can survive this constant gossiping and merciless publicity, comparison and criticism. It is trying to the patience of the rural doctor, but it keeps him very alert, makes him cautious in what he says and does and above all it makes him study the recent medical literature and sends him off frequently to visit the leading medical centers.

Rural people may not have the external polish of the city dweller, but they have good common sense, and are frequently well informed on medical matters. They have strong likes and dislikes, and know what they want and whether they are getting it. It takes an awful hard-shelled quack to survive in such a community with a record of many glaring mistakes. It is much easier to move to the city and hide in the crowd.

Rural districts are loosing their doctors, not because of a scarcity of physicians but be-

cause they demand a higher type of physician than the average; and expect to pay less for his services. The work is more strenuous in the country as compared with the city. Rural districts want a local physician for the emergency calls only, and these are too few in number to support the average physician. The trusty Ford makes it possible to run the chronic and subacute case to the neighboring city.

The loud talk we hear from the lips of some of our present lawmakers; to lower the medical standards in order to supply the fast vanishing ranks of rural doctors, will not accomplish the desired results; but on the other hand will place an irreparable blemish upon the medical profession.

When we fail to hold, or to realize, either as individuals or as a body, what are our sensible expectations, it is well in the majority of instances to look within rather than without for the cause of our disappointments. The general practitioner in his desire to make use of, and to have all the latest methods of diagnosis, has become so spread out, and his thoughts so attenuated, that he too frequently overlooks, sets aside, or neglects to use the basic principals, the fundamental requirements of a correct diagnosis; namely, careful history taking and a thorough painstaking physical examination. How often have we neglected to use the methods of diagnosis that have been advantageously used for ages; that is inspection, palpation, percussion, mensuratin and auscultation.

It may cause us to glow with enthusiasm to read that the *X*-ray man can diagnose duodenal or peptic ulcers or early tubercle of the lungs in ninety per cent of the cases. Be that as it may, I believe that it is unfortunate for the general practitioner to think he can do likewise.

The correct interpretation of an *X*-ray plate requires much training and study, much more than has been had by the majority of general practitioners. It is true the public expects much from the *X*-ray, no matter in whose hands it is placed, and they think that any doctor should be able to read all the physiologic and pathologic conditions within the body. And, it is true, but sad, that the *X*-ray is frequently used to strengthen and impress that belief on the patient's mind.

Outside of fractures and dislocations, the correct and intelligent interpretation of fluoroscopic views and *X*-ray plates requires a greater training than has been received by most general practitioners.

Fortunate is the man, and thrice fortunate the patients of him, who whether as physician or surgeon, realizes and is governed by his limitations as well as his qualifications.

Too often, the necessary, primary and fundamental physical examination is not made, or if it is, not as thoroughly made as it should be. Over and over again an erroneous diagnosis is made on the basis of the laboratory findings which could have been avoided and the correct diagnosis established by available simple methods of examination.

A correct anatomic and functional diagnosis can be made in more than seventy-five per cent of all the patients of an average community by a qualified, industrious, painstaking general practitioner; by the sole application of the trained mind, the special senses, the hands, and an always available simple laboratory equipment.

Understand I am not speaking disparagingly, of biochemistry, metabolism, blood-chemistry, fluoroscopic, *X*-ray and other aids in medical examinations. They do not, and will not, take the place; and are secondary to, and should so continue to be, to a careful, thoughtful, physical examination.

It is my belief that each and every pathologic, functional and neurologic condition gives a clinical manifestation—a manifestation which we may not be able to discern or differentiate but which, nevertheless, exists.

The general practitioner who will carefully use his faculties, his thoughts, his reasoning, and his senses in the examination of his patients, who will attend, if posible, some medical center a few weeks each year, who will frequently consult his medical library and journals, and who will attend his medical societies, need have no fear of being overtaken by premature medical senility, or being pushed aside either from within or without the profession.

Medicine is both a science and an art. Each case is a law unto itself. Each patient has a characteristic individuality, and the disease occasionally varies in type. It is this very knowledge of the idiosyncrasies, of the habits, of the vitality, of the peculiarities, of the constitution of the individual, acquired over years of observation, both in health and in

sickness, that is of great aid to the family physician.

And to quote some author of the past, "Where will you find another man to match the average doctor? Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important. Herculean cheerfulness and courage. So it is that he brings air, cheer and sunshine into the sick room, and often enough, though not so often as he wishes, brings healing."

As we pause and look into the past, we are impressed with a feeling of awe and respect for a profession which has existed and progressed through so many ages; always with the one object—the alleviation of suffering and prolongation of life. How many Dynasties have come and gone during these years? Are we not honored in being a member of a profession whose very age is a monument to its efficiency for the benefit of mankind?

The general practitioner and family physician occupy a position that is granted to none other in the medical profession; and to few, if any, of other walks of life. When he has practiced in the same families through two or three succeeding generations; when he has observed the children grow from infancy to childhood, from childhood to womanhood and manhood; when he has been privileged and expected to address them by their Christian names; when he has rejoiced in their happiness; and sympathized in their sorrows; and when he has passed the meridian of life and yearly observes his shadow lengthening towards the East, in surroundings such as these, he will enjoy a satisfaction and a comfort that money cannot buy, that the world cannot give, and that the world cannot take away.

DISCUSSION

DR. T. M. FLY, Little Rock: Of all the papers I have heard at this meeting or any other, I think this is the most classic and I hope that everybody who is not here will take the opportunity to read it and know that it takes just such a man as this boy here to write it. (Applause.)

DR. THOS. C. WATSON, Benton: I am like Dr. Fly. I appreciate the paper very much. Of course, I know Dr. Ware. All the experiences in our lives have been along that line in the country. It is such a wonderful paper. It is an expression that hundreds and hundreds of doctors should endorse. It is the truth and beautifully said and I appreciate it.

DR. WARE, in closing: I wish to thank the gentlemen for their kind expressions.

CUTANEOUS BLASTOMYCOSIS WITH REPORT OF FIVE CASES*

Roy I. Millard, M. D., Dardanelle

For many years some bacteriologists have believed that there were pathogenic yeasts which produced disease in men. In 1854, Raubold found oidia in the respiratory passages. Raum, in 1891, inoculated yeasts into a rabbit causing its death. Gilchrist, in 1894, reported a yeast recovered from a skin disease. During the year 1898, Hektoen and Hyde recovered a yeast from a patient suffering from an ulcerated leg (1). Since Gilchrist's report in 1894, of the first case of cutaneous blastomycosis, numerous similar cases have been recorded. In recent years many writers are emphasizing the importance and frequency of fungus infections (2).

Blastomycosis is an infectious disease. It is caused by the entrance and multiplication of pathogenic yeast cells, to which the inflammatory reaction is essentially chronic, resulting in granulomatous formation which is most frequently mistaken for syphilis or tuberculosis. As a rule, the infection is confined to the skin, runs a course of months or years and may cause more or less disturbance of the general health, including anemia (3).

This disease is quite frequent in the region of Chicago. Cases have been reported in about fifteen States, mostly from southern and mid-western States. It is undoubtedly more prevalent than supposed (2). The disease occurs most frequently in those who lead an outdoor life. Trauma undoubtedly plays an important part.

The disease is due to a vegetable fungus, the blastomycete, a peculiar budding organism which superficially resembles an ordinary yeast cell. The organism is rounded or oval in outline, occurs singly or in pairs, and averages about 10 or 12 micra in diameter. It possesses a distinct capsule and the central portion is made up of finely granular protoplasm. In the body it reproduces by gemmation without sport formation.

The face and hands are most frequently involved but any part of the skin may be affected. The clinical history is essentially uniform (4) in all cases, the following features being outstanding: (1) An incipient papule

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which becomes pustular, yielding a glairy, somewhat tenacious pus. (2) Gradual extension of the ulcerating surface, which is soon covered with coarse, soft and friable papillae, and is surrounded by a reddened areola in which many minute abscesses are visible. Healing (cicatricial) in the oldest portions of the lesion as the border advances. (4) A variable amount of pain, depending upon the site involved, upon a temporary increase or decrease of the virulence of the specific infection, and the amount of secondary infection present. (5) The absence of lymphatic glandular involvement in a great majority of cases. (6) The protracted and progressive course of the disease, which may extend over ten or twelve years, and in the face may cause great cicatricial deformity (7) The tendency of the scar to eventually approach the appearance or normal skin (8) Extension to mucous surfaces does not occur readily. (9) The absence of general toxic disturbances attributable to the local infection.

A cross section of one of these granulomatous patches reveals to naked eye inspection from without inward (1) a papillary zone, composed of a superficial layer of isolated villiform processes and a deeper layer of similar processes which are united side by side. (2) A homogeneous vascularized, grayish-red cellular zone, in which numerous minute abscesses are formed. (3) An unaltered layer of subcutaneous fat, as the limit of deep extension.

Stained sections of the tissue exhibit the following histological features: (1) A vast amount of epithelial hyperplasia, which has been described by Ricketts (4) as "carcinomatoid." (2) Minute intra-epithelial abscesses. (3) A granulomatous condition in the corium, characterized by masses of plasma cells, minute abscesses, tuberculoid nodules and giant cells. (4) The presence of a spherical, capsulated, budding organism, particularly in the epidermal and sub-epidermal abscesses, but also distributed unevenly and in small numbers in epithelial masses and granulation tissue.

Cutaneous blastomycosis is most commonly confused with tuberculosis verrucosa cutis and syphilis. The lesion of tuberculosis verrucosa is much slower growing and does not have the minute abscesses. With care the bacilli can usually be found in the lesion. It may be suggested by the presence of pulmonary tuberculosis. The lesion of syphilis is circinate. It often breaks down and soon becomes covered with a foul greenish crust (3). A Wassermann test will be positive in the majority of cases with such lesions.

In blastomycosis a primary smear of the fresh material, diluted with ten per cent sodium or potassium hydroxide, and examined with the ordinary one-sixth dry objective will usually reveal the organism. A section taken from the edge of the skin at right angles to the edge of the ulcer and examined by a competent pathologist will usually reveal the diagnosis.

Iodine is the most important drug available for the treatment of this disease. It should be given internally in the form of the saturated solution of potassium iodide, beginning with a small dose, increasing to tolerance and continuing over a long period of time. It may also be given as sodium iodide intravenously. Tincture of iodine should be applied locally. These patients, even with large ulcerated, bleeding areas, bear the local application of iodine remarkably well. Some cases, especially those of long standing, do not respond to medical treatment. When possible, complete excision is indicated. In more extensive lesions curettage, superficial cauterization, and X-ray are necessary.

The disease is obstinate and resistant, but perseverance in treatment is usually followed by a cure. Recurrences are not uncommon. Occasionally, the lesions disappear spontaneously.

Report of Cases

Five cases are presented, two proven, and three diagnosed clinically. The unproven cases were seen before the others and were not diagnosed. After two cases had been positively diagnosed, a review of these three case records made the diagnosis practically certain. They are presented in this manner, to bear out the contention of Dr. Stuart Graves of Louisville and others, (3 and 5) that this disease is commonly overlooked.

Case 1. G. M., male, age 35, farmer, seen June 6, 1929, complaining of a growth on the back of the right hand. It had appeared six or eight months before as a small pimple that had been gradually enlarging. A crust had formed which had repeatedly been broken off causing bleeding and some pain.

The patient was a healthy young man. Physical examination was negative except for the

right hand. Near the ulnar side of the dorsum of the hand there was a spongy, granulomatous, wart-like mass, 2 cm. in diameter, and raised about 2 cm. above the surrounding skin. It was covered by a crust, removal of which revealed numerous tender, papillary growths. Many minute abscesses were seen between these papillae. The mass was freely movable over the underlying structures. There was no epitrochlea or axillary lymphatic glandular involvement.

The mass was excised under novocaine anesthesia, and the wound healed in a few days. Section of the tumor showed it to be filled with numerous small abscesses.

Case 2. V. W., male, farmer, age 30, seen May 1, 1930.

Case 3. I. G., male, carpenter, age 27, seen August 30, 1930.

Cases 2 and 3 will not be described fully because the history, appearance of the lesion, treatment, and results in both cases were almost identical with those described in Case 1.

Case 4. A. S., male, farmer, age 17.

Past and family history of no significance.

Seen July 29, 1930. Chief complaint sore on left heel. Three or four days before the shoe had produced a small blister. There had been considerable pain and swelling of the heel and in the popliteal region, and the patient had noticed a "kernel" in the left inguinal region.

On the posterior surface of the heel at the level of the malleoli there was a reddish, swollen, tender, fluctuant mass. In the center of this was the original bleb, which had been ruptured.

The leg was semi-flexed on the thigh and held rigid. Deep in the popliteal space was a large, firm mass, slightly fluctuant. It appeared about the size of an egg.

The mass on the heel was freely incised under ethyl chloride and about half an ounce of a thin yellowish pus expressed. A rubber drain was inserted and a wet dressing of a saturated solution of aluminum acetate applied. Under novocaine anesthesia a deep incision was made in the popliteal space, about three ounces of pus expressed, and a rubber drain inserted.

On August 25 the inguinal adenitis had disappeared, both wounds had almost entirely stopped draining, but the leg was still rigid in semi-flexion. Under general anesthesia the leg was straightened and splinted. After ten days the splint was removed, and no deformity remained.

The patient did not return for about two weeks. When he was again seen, September 20, a granulomatous mass had developed at the site of the initial lesion. It was raised, tender, red, spongy, papillary, and contained several minute abscesses. Mild local antiseptics were applied with little change in the condition on September 20, when the patient again discontinued treatment and was not seen until January 6, 1931.

At that time the posterior surface of the entire leg and lower half of the thigh was covered with an ulcerative lesion. The edges were irregular and the ulcer was covered by a thin brownish crust. Removal of the crust revealed an ulcerated surface, moist, oozing, and dotted all over with numerous minute abscesses in the skin.

Physical examination was otherwise entirely negative. There was no fever, no glandular involvement, and very little pain. Repeated Wassermann tests were negative, and the urine was always normal. Various local applications were used without any appreciable change.

He was seen at intervals of one day to one month. He suffered very little pain or inconvenience, and refused to follow instructions or to return regularly for treatment.

On September 1, 1931, blastomycosis was suspected. Smears were made from the lesion, diluted with 10 per cent sodium hydroxide, and blastomycetes were easily found. He was given a saturated solution of potassium iodide, beginning with 15 drops t. i. d., and increasing to 115 drops t. i. d. (his toleranee point). This dosage was continued almost without interruption throughout the remainder of his treatment. Iodine was applied locally every day. From the beginning of this treatment improvement was noticeable.

On December 1, 1931, after the patient had missed treatment for about a week, a smear was made from one of the ulcers, and a few blastomycetes were still present.

From this date treatment was continued with steady improvement until January 23, 1932, when he was discharged as cured. At that time there were no active lesions, but there was considerable scar tissue where the ulceration had been deepest. At present, praetically all of the searring has disappeared, and, exeept for slight bluish discoloration, the

skin is entirely normal in appearance.

Case 5. T. C., male, age 75, farmer. Seen January 23, 1931. Past and family history unimportant.

Chief complaint tumor on the right hand.

Present illness: Began about 18 months before as a small pimple, which had gradually enlarged. For the last few months it had been covered by a crust, which was often accidentally scraped off, leaving a tender, bleeding surface.

Physical examination was negative except for the right hand. He was an unusually active and vigorous man for one his age. In the center of the dorsum of the hand there was a spongy, granulomatous tumor, about 3 cm. in diameter and raised about one and a half cm. above the surrounding skin. There was a brownish crust, removal of which revealed numerous papillary projections, interspersed among which were small abscesses. Surrounding this granulomatous mass for a distance of about 1 cm. was a reddened areola. There was no local elevation of temperature, very little tenderness, and no glandular involvement. The mass was removed under novocaine anesthesia and the incision closed with catgut sutures. The specimen was sent to the laboratory because of the possibility of malignancy.

When the wound was dressed on the third day the incision was almost entirely healed, but the entire dorsal surface of the hand was ulcerated, and dotted with many small abscesses. Various local antiseptics were applied without any appreciable change.

On the twelfth day, the laboratory reported that the tissue was histologically typical of blastomycosis.

The patient was given seven and a half grains of sodium iodide intravenously and 15 grains the next day. A saturated solution of potassium iodide was given by mouth, beginning with 15 drops and increasing to tolerance, which in his case, was 74 drops t. i. d.

At first, U. S. P. Tincture of Iodine was applied and the excess carefully removed with alcohol before dressing. Later the tincture was applied liberally every day and a thick dressing immediately applied. The patient made a steady improvement until March 5, 1931, when he was discharged. At that time there was quite a large amount of scar tissue present. At present, there is no visible sign of the disease.

Summary

1. Cutaneous blastomycosis is a chronic, infectious disease due to a fungus of the yeast family.

2. It is more prevalent than commonly believed.

3. Diagnosis is easy if suspected.

4. The disease is resistant to treatment, but usually responds.

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DISCUSSION

DR. W. R. BROOKSHER, JR., Fort Smith: The subject of cutaneous blastomycosis has, of course, been particularly interesting to the dermatologist since it was first reported in 1894. There have been several hundred cases reported in the literature since that time but the importance of recognition of the lesion has not yet reached the man who sees the case first. If the condition is suspected, the actual diagnosis is a relatively simple matter. As the essayist has pointed out, a few drops of ten per cent sodium hydroxide applied to the sputum on a slide will give the diagnosis.

Blastomycosis is essentially a chronic lesion, requiring the most persevering type of treatment for its eradication. Systemic cases also occur, although they are not presumed to necessarily follow the cutaneous type. Some one hundred or more cases of the systemic type have been reported. Probably many indolent wounds which fail to respond to the usual treatment and which are not syphilitic have been secondarily invaded by blastomycetes. It is worthy of note that the skin lesion appears almost exclusively among outdoor workers.

I want to compliment the essayist upon his presentation and for the work he has given in its preparation.

DR. MILLARD, in closing: I don't care to add anything except to emphasize what Dr. Stuart Graves said when he said that blastomycosis of the skin is much more common than is generally believed.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

PROPOSED TENTATIVE POLICIES OF THE COUNTY HEALTH UNIT

Will H. Mock, M. D.

President, Arkansas Medical Society

1. The unit will continue to advertise as heretofore all immunization clinics, indicating the time and place, setting out the following:

Immunization given to those not able to pay for same. Those able to pay are requested to report to their family physician. A fee of ten cents will be charged for smallpox vaccinations, and twenty-five cents for diphtheria toxoid, or toxin-antitoxin, to cover costs of same. Also a sign shall be posted in a conspicuous place at each clinic bearing the following: This clinic is for the benefit of those unable to pay the family physician for this service.

2. Where their is any question as to those able to pay, applicants applying for immunization will be requested to sign a statement that they are unable to pay a physician for same.

3. Provided that this shall not apply in any community where a physician or physicians do not object to the policy now in practice. Provided further, that this shall not apply to colored race except on plantations where the management will make arrangements to pay a private physician for this service.

4. Provided further that item one shall not apply to the remote sections of the country where diphtheria or typhoid fever occurs, if policies in effect obstruct the early inoculation or control of the same. All restrictions may be removed by conference agreement between the physician and the Health Personnel.

5. That this agreement shall not apply against smallpox vaccinations, as the law requires the health officer to vaccinate against smallpox, free of charge, where it is requested.

6. The members of the County Medical Society agree to co-operate with the County Health Unit in reporting notifyable diseases, in accordance with the requirements, to the County Health officer. File birth certificates with the local registrars and sign death certificates promptly.

7. That when physicians fix a nominal immunization fee not to exceed one dollar per

complete immunization, biologicals may be secured through the County Health officer at the State contract prices.

Abstracts

ON THE CHEMICAL NATURE OF THE PELLAGRA TOXIN AND THE DISCOVERY OF THE THIOSULPHATE TREATMENT OF PELLAGRA

Dr. Ibrahion Sabry of Alexandria, Egypt, read a paper on pellagra at the International Congress of Medicine, held at Cairo, April 22, 1932, and from which we copy the following interesting points:

As to the etiology Dr. Sabry says, "The vitamin theory regarding the origin of the disease is now in the forefront. It may sound bold of me, but I must say that I contest this theory from top to bottom."

If the disease were due to lack of vitamins, it would not be possible to obtain such a remarkable improvement or a cure as that which follows thiosulphate treatment (see description infra) within such a short time. No disease due to vitamin deficiency has ever been known to improve without the administration of the lacking vitamin and by the mere introduction of a salt which from the nature of its preparation cannot possibly contain any vitamin; more especially the anti-pellagric or pellagra preventative factor which is unstable at temperature 122-125 degrees c. i.

The peasants on the other hand are heavy vitamin consumers. There is no doubt that every one of them, even the poorest, uses a sufficient amount of milk to make up for any so-called vitamin G deficiency; more especially during the months of December, January, February, and March when abundant quantities of milk are always available. Every pellagrin of the 97 cases described infra admitted that he had been using milk in his diet, more especially during that period. If this were so, how a flood of the disease could occur each spring or directly after the peasant have used the best wholesome milk of any year which is very rich in vitamin G or the so-called P. P. factor.

Another argument which may alone be sufficient to explode the vitamin deficiency theory is the established fact that pellagra may occur in people provided with excellent dietary (2).

Again it would be impossible to reconcile the periodic course of pellagra with a vitamin deficiency theory. For if this were so, what should naturally be expected in a case of pellagra would be a gradual change from bad to worse from the onset of the disease onwards—which is contrary to the periodic course of pellagra that we observe. The fact that the first one or two attacks of pellagra usually heal up of themselves and the patients show good improvement in spite of continuing to consume, without any addition, their original diets that are supposed to be deficient in certain vitamins, would speak strongly against any vitamin deficieney theory.

Let me now read a summarized account of the experiments on "Avitaminoses" in the Albino rat conducted by H. S. Thatcher, Professor of Pathology, Arkansas University, B. Sure Ph. D., and D. Walker, M. S., and read last August before the International Congress of Paris. Prof. Thatcher has been kind enough to send me this work with an encouraging letter accepting and supporting my view on the chemical nature of the pellagra toxin.

Prof. Thatcher, B. Sure, and D. Walker say that in their opinion neither they nor other investigators preceding them have actually produced a disease in the rat comparable with human pellagra. By keeping Albino rats on diets deficient in vitamin G which is considered as antidermatitic and at the same time a growth promoting dietary essential, the main symptoms observed were cessation of growth, loss of weight, and dermatitis. Other accompanying symptoms noted were ophthalmia, chromogenic urine and incontinence of urine. A seasonal variation was not noted in the occurrence of dermatitis. Alopecia, ulceration of the skin, atrophy of the spleen and of the thymus, fatty changes of the liver and hemorrhages and congestion of the intestines were the main pathologic changes.

Diarrhoea was not a prominent symptom as it is in many pellagrins. Salivation did not occur, but this is not very important in pellagra. Stomatitis was also absent. The presence as regards the protein deficiency theory, this is a theory which dates from the beginning of the present century. The theory maintains that one particular protein factor is an essential pellagra preventative. Considerable search has been made to discover

that factor and so far without success to my knowledge. For, although outbreaks of the disease have occurred in which faulty diets were proved, yet hundreds of impoverished French refugees were examined by Thatcher (1) and found to show no signs of pellagra whatever. Studies were made and reported as "Notes of the Public Health Laboratories, Cairo, 1919," on the diets of pellagrins among the Armenian refugees at the time of the war, but the supposed deficiency was not traceable. Similar studies were made on German and Turkish prisoners (2) and here again the supposed deficient factor could not be spotted. MacNeal (3) in 1922 noted that no outbreaks had occurred in France, England, Austria, and Germany during the war, notwithstanding the fact that the food shortage in some of those countries especially the central European ones was chronic. In the epidemic of pellagra in Nashville, a certain number of cases occurred where the diet was wholesome. This fact has been reported by Jobling and Peterson (4) who, notwithstanding the unique opportunity provided by an epidemic on a large scale such as that which occurred in Nashville and not withstanding the premeditated hypothesis concerning the origin of the disease, could not satisfy themselves of the truth of the protein deficiency theory. In the Lancet 1:998, 1922, Enright, after a critical analysis of the diets of the German prisoners did not believe that a food deficiency was related to this disease. The late pellagrologist Goldberger, at one time a staunch believer in the protein deficiency theory, had to give it up in the end to embrace the vitamin deficiency theory.

There can be no doubt that a deficient diet renders the body less resistant and more liable to disease in general. A weakened body will more readily than a sound constitution be open to the attacks of tuberculosis, influenza, and a host of other diseases. But it is one thing to say that a bad diet, through its weakening effect on health, will aid the invasion of the body by the disease and quite another thing to say that the deficient diet produced the specific disease. It is very tempting when observing cases of pellagra among poorly fed human beings to relate poor feeding and the disease as cause and effect; but it will be just as true to ascribe an attack of tuberculosis or influenza to a deficient diet.

I will not touch on the parasitic theory or the photo-dynamic theory as these theories are not only vague but can hardly be said to claim many adherents today.

As to the method of treatment, I give intravenously 10 cc. daily of a 10 per cent solution of chemically pure sodium thiosulphate in distilled water after sterilization in the autoclave or by simple boiling for ten minutes. The number of injections varies according to the case from 10 or 15 to 60. In fact, when using this treatment, one will feel always inclined to push it further than necessary as no complications or contraindications are whatsoever met with. Should a patient show some rigors after the injection, this would at once indicate that the salt used was impure or the process of sterilization had not been perfectly carried out.

(1) Chick & Roscoe: Biochemical J. 24:105, 1930.
(2) Manual of Trop. Med.: Castellany & Chalmers, p. 1709.
(1) H. S. Thatcher: Archives of Pathology, December, 1931, Vol. 12, pp. 970-982.
(2) J. Roy: Army M. Corps, 33:426 and 508, 1919; 34:70, 173 and 272, 1920.
(3) MacNeal, W. J.: South. M. J. 15:899, 1922.
(4) Jobling, J. W. and Peterson, W.: J. Infect. Dis., 18:501, 1916; 21:109, 1917.

INDUSTRIAL DERMATOSES, WITH SPECIAL REFERENCE TO ALLERGY AND MYCOTIC DERMATITIS

Earl D. Osborne and Edwin D. Putnam, Buffalo (Journal A. M. A., September 17, 1932), discuss the two most important phases of industrial dermatoses, namely, dermatitis due to allergy and mycotic infection. Ninety per cent of industrial dermatoses fall in these two categories. The advance in knowledge in the past few years has been sufficient to change greatly the concept of these two phases of industrial dermatitis. There have been many controversial problems that can be definitely settled. The era of immediate or snapshot diagnosis in any case of industrial dermatitis has definitely passed. To examine a patient properly and to diagnose a case requires a great deal of time, patience and a certain amount of inquisitiveness and detective ability, as well as the proper laboratory facilities. Large collections of substances used in industry must be kept on hand for patch testing. Proper laboratory facilities must be available for mycotic studies. In the authors' opinion, the time and energy spent in determining the exact cause of a given case is well

worth while. In fact, from the standpoint of the dermatologist, nothing is more satisfying than the solving of a group of difficult cases of industrial dermatitis. Lastly, the economic side of industrial dermatitis due to allergy and mycotic infection is of vast importance. It is apparent to any one familiar with industrial court cases that large sums of money could be saved by industry if a prompt diagnosis, backed by a scientific proof, were made, and the proper preventative measures were instituted. In the long run, it is the employee who benefits the most. No honest workman desires to live on compensation and be deprived of his full earning capacity, not to mention the weeks and months of suffering due to dermatitis. If a change in occupation is found necessary, the sooner it is accomplished the better for all concerned.

Personal and News Items

Dr. J. Donald Hayes of Little Rock announces the opening of his offices at 746 Donaghey Building. He will limit his practice to general surgery.

Dr. and Mrs. J. C. Cunningham and son, Billy, of Little Rock have returned from a trip to Panama, returning by way of California where they spent some time.

Dr. W. C. Tipton of Laguna, New Mexico, recently visited friends in Little Rock and Mountain Home.

The Second Clinical Conference under the auspices of the staffs of the Leo N. Levi Memorial Hospital and Charles Steinberg Clinic of Hot Springs was held October 13-14, 1932. Guest speakers were: Dr. Louis A. Buie, Chief of the Section of Proctology, Mayo Clinic, Rochester, Minn., and Major James M. Troutt, Chief of the Surgical Service, Army and Navy General Hospital, Hot Springs.

The annual meeting of the Arkansas Tuberculosis Association met in Little Rock, October 12, 1932. Dr. Chas. S. Holt of Fort Smith presided. Dr. J. D. Riley of Booneville presented a paper on "The Diagnosis of Childhood Tuberculosis." Dr. S. J. Wolfermann of Fort Smith, "The Case-Finding Clinic." This was followed by an interesting discussion.

The Tri-County Clinical Society, composed of Clark, Nevada and Hempstead counties, met in Hope, September 30, 1932. Speakers were: Dr. A. B. Dickey and Dr. A. W. Hudson of Prescott; Dr. W. T. Rowland, Arkadelphia, and Dr. W. F. Smith, Little Rock. Other guests were: Dr. Decker Smith and Dr. Roy F. Baskett of Texarkana; Dr. F. W. Youmans of Lewisville, and Dr. F. D. Henry of Hope.

The Tri-County Medical Society, including Ouachita, Union and Columbia counties, met October 6, at Camden. The program was as follows: Address of Welcome, Hon. Luther Ellison, Secretary, Camden Chamber of Commerce; "The Medical Profession," by Dr. Will H. Mock, President, Arkansas Medical Society; "A Ray of Hope in Cancer Treatment," Dr. E. L. Sanderson, Superintendent, Shreveport Charity Hospital; "The Effect of Cervix Infections on the Health of Women," Dr. Walter E. Sistrunk, Dallas, Texas.

The fifty-fourth annual session of the School of Medicine, University of Arkansas, opened September 19, 1932, with an enrollment of approximately two hundred. Two young women, Miss Grace Watkins of Little Rock, and Miss Mary Frances Hamilton of Fort Smith, are among the freshman, while there are six women students in all enrolled.

Dr. Vinsonhaler delivered the annual opening address before the student body.

Dr. Harry H. Davis from Cornell University has been added to the faculty. He will serve as instructor in the department of physiology and pharmacology.

The Third District Medical Society met in Augusta, October 7, 1932. The program was as follows:

Welcome Address, Dr. C. E. Dungan, Augusta; "Synopsis of What Organized Medicine Could Do to Relieve the Fifth Estate," by Dr. R. L. Frazier, McCrory; "Medical Abdomen," by Dr. S. F. Hoge, Little Rock; "Surgery in Obstetrics," by Dr. A. G. Harrison, Searcy; "Long Labors and Anelgesia in Obstetrics," by Dr. W. T. Pride, Memphis, Tennessee; "Treatment of Fractures," with lantern slide demonstration, by Dr. F. W. Carruthers, Little Rock; "Fractures," by Dr. E. D. McKnight, Brinkley, and "The Cancer Problem," by Dr. Dewell Gann, Jr., Little Rock.

The Tenth Councilor District Medical Society met in Fort Smith, September 13th. About 100 physicians from Benton, Washington, Madison, Crawford, Franklin, Logan and Sebastian counties attended.

During the morning, surgical clinics were held at St. Edward's Mercy, Sparks Memorial and St. John's Hospitals.

Dr. L. J. Moorman of Oklahoma City, president of the Southern Medical Association was the guest speaker. Other speakers were: Dr. H. D. Wood of Fayetteville; Dr. H. J. G. Koobs of Rogers; Drs. J. D. Riley and J. J. Willingham of the State Sanatorium; Dr. M. S. Dibrell of Van Buren, and Dr. P. L. Hatchcock of Fayetteville.

Officers elected were: Dr. G. G. Woods of Huntington, president (re-elected); Dr. J. M. Taylor of Fort Smith, vice-president, and Dr. Charles S. Paddock of Fayetteville, secretary-treasurer. Fayetteville was selected as the next meeting place.

The First Councilor District of the Arkansas Medical Society will meet in Blytheville, October 20, with the Mississippi County Medical Society as host. The officers of the society are: Dr. J. C. Land, Walnut Ridge, president; Dr. F. D. Smith, Blytheville, secretary-treasurer, and Dr. W. M. Majors, Paragould, councilor.

The program announced for the meeting is as follows: Morning session: Invocation, Rev. E. K. Latimer, Blytheville; Address of Welcome on behalf of Blytheville and Mississippi County Medical Society, Hon. Max B. Reid, Blytheville; Response to Address of Welcome, Dr. G. A. Warren, Black Rock; "The Common Cold," Dr. L. C. McVay, Marion; "Tetanus," with Case Report, Dr. J. H. Lamb, Paragould; Councilor's Address. Afternoon session: President's Address; "Treatment of Anemias," Dr. J. B. McElroy, Memphis, Tenn.; "The Basic Principles of Infant Feeding," Dr. E. R. Barrett, Jonesboro.

The Eighth Councilor District Medical Society met in Little Rock, October 3, 1932.

The morning was devoted to clinics, which were held at St. Vincent's Infirmary, Baptist State Hospital, Missouri Pacific Hospital and General Hospital.

Dr. R. L. Smith, Russellville, president, presided at the afternoon meeting. Speakers on the program were: Dr. H. Fay H. Jones, Little Rock, president of the Pulaski County Medical Society, Address of Welcome; Dr. H. W. Hundling, Little Rock, "Management of Toxic Goiter"; Dr. L. M. Smith, Russellville, "Empyema," and Dr. S. C. Fulmer, Little Rock, "Heart Disease."

The conference closed with a dinner at the Hotel LaFayette. Dr. R. L. Smith, Russellville, was toastmaster. Mr. William Johnson, Feature Writer, Arkansas Democrat, Little Rock, was the guest speaker.

The 1933 spring meeting will be held at Clarksville. It was decided to hold all fall meetings in Little Rock.

Officers elected were: Dr. M. J. Kilbury, Little Rock, president; Dr. L. Gardner, Russellville, vice-president; Dr. Clyde Rogers, Little Rock, secretary.

The Fourth Councilor District Medical Society met at the Hotel Pines, Pine Bluff, October 4, 1932, at which the following doctors attended:

Dr. Fay Jones and Dr. Paul Mahoney of Little Rock; Dr. Dixon and Dr. Thiolliere of Gould; Dr. Barlow of Dermott; Dr. Fowler and Dr. Hartsell of Warren; Dr. Douglas, Dr. Drennen and Dr. John of Stuttgart; Dr. Kelly of Sheridan; Dr. Kimbro of Tillar; Dr. Wilson of Monticello; Dr. Smith of McGehee, and Drs. McMillen, Spillyards, Troupe, Lemons, Capel, Higinbotham, Gill, Hankison, John, Palmer, Clark, Lowe of Pine Bluff.

On the program, Dr. Smith read a paper on "Public and Medical Education" which, in the opinion of every doctor present, was a very valuable paper, and it was sent to the Secretary of the Arkansas Medical Society with a request that it be printed in the Journal. Dr. McMullen read a paper on "Vomiting in Children." This paper was a very fine one and was freely discussed by all the doctors present. Dr. Fay Jones of Little Rock read a paper on "Tumors of the Bladder." This paper was accompanied by lantern slides, and made it a most interesting and instructive paper.

McGehee was selected as the place for the next meeting, which will be held in the spring of 1933.

The following officers were elected to serve for the ensuing year: Dr. H. T. Smith of McGehee, president; Dr. Charles Dixon of Gould, vice-president; Dr. E. C. McMullen of Pine Bluff, secretary-treasurer.

At the closing of this meeting a resolution pertaining to the State Board of Health passed unanimously.

Auxiliary Notes

The Woman's Auxiliary to the Miller-Bowie County Medical Societies held the first meeting this fall on Friday, September 23, at a luncheon at the home of Mrs. Preston Hunt, with Mrs. Hunt, Mrs. E. M. Watts, Mrs. C. E. Kitchens, Mrs. Decker Smith, Mrs. L. H. Lanier, Mrs. H. E. Murry and Mrs. Geo. Parson as hostesses.

The honor guests were Mrs. P. H. Phillips, Ashdown, president of the Auxiliary to the Arkansas Medical Society, Mrs. William Hibbitts, vice-president, and Mrs. L. H. Lanier, recording secretary, of the same body. Mrs. Preston Hunt, historian of the Texas State Auxiliary, and Mrs. Allen Collom, historian of the Southern Medical Auxiliary and Mrs. S. A. Collom, chairman of the revision committee of the American Medical Auxiliary. The next meeting will be October 28.

Obituary

BUCHANAN, GILBERT A.—Dr. G. A. Buchanan of Prescott, aged 48, died September 12, 1932. Dr. Buchanan was educated in the Prescott public schools and received his M. D. degree from the University of Arkansas with the class of 1911. After his graduation he returned to Prescott and was associated with his brother, Dr. A. S. Buchanan, in practice of medicine until his death. He was also associated with his brother in the operation of Buchanan's drug store and the Cora Donnell hospital.

He is survived by his widow; one daughter, Clara Frances; two sons, Paul Otis and Donald Buchanan; three brothers, Dr. Albert S. Buchanan, W. K. and Vern Buchanan; and two sisters, Mrs. J. B. McCain and Mrs. C. G. Gordon.

LUCK, J. LUTHER—Dr. J. L. Luck of Hope, aged 57, died September 15, 1932. He had been a physician in Hope for eight years, moving from Mineral Springs where he practiced previous to that time.

Besides his wife, he is survived by two sons, Leslie Luck of Galveston, Texas, and Vanda Luck of DeValls Bluff; a daughter, Vivian Luck of Hope; five brothers and two sisters.

MURPHY, GEORGE W.—Dr. G. W. Murphy of Strong, died September 16, 1932. He was born in 1872, in Oakland, Louisiana. He was a graduate of Tulane University of Louisiana School of Medicine in class of 1894, after which time he practiced at Oakland nine years, then moving to Strong, Arkansas, where he had practiced until the time of his death.

Surviving are his wife, Mrs. Mary Henderson Murphy; one daughter, Mrs. John Evans Meadows of Arkadelphia, and two sons, Henderson and Ware Murphy of Strong.

County Societies

BENTON AND WASHINGTON COUNTIES

(Reported by Fount Richardson, Secretary, Washington County Medical Society)

A joint meeting of the Benton and Washington County Medical Societies was held September 6, 1932, at the Washington Hotel, Fayetteville. Dr. J. W. Walker of the Washington County Society presided.

Members present were: Benton County—Koobs, Estes, McNeil, Curry, Moore, Green, Harrison, Wilson, Hughes, Horton. Washington County—Walker, McCormick, Morrow, Ellis, A. Hathcock, P. L. Hathcock, Mock, Wentz, Wood, P. L. Hathcock, Jr., Gregg, Gilbert, Callen, Paddock, Robinson, Briley, Henry, Fowler, Richardson and Wallace.

Mr. Dwight Savage, attorney, gave a very scholarly address on the legal status of the physician with regards to the Federal Government, entitled, "The Physician and the Eighteenth Amendment."

Dr. Will H. Mock, President of the Arkansas Medical Society, gave a talk on "Faith, Hope, and Charity in Medicine." He later presented to the societies a copy of "Proposed Tentative Policies of the County Health Unit." (See Editorial page this issue.)

Dr. H. E. Buchanan, Professor of Mathematics at Tulane University, was introduced to the society and brought greetings to the profession from New Orleans.

In discussion of the County Health Unit, it was the opinion of practically all those present that the handling of the group immunizations as being done in Benton and Washington counties was highly unsatisfactory. It is hoped that the resolution offered by Dr. Mock will improve conditions. The opinion was practically unanimous that the State Health Officials are not abiding by the resolutions as drawn up by the House of Delegates at the April meeting of the State Medical Society.

CHICOT COUNTY

(Reported by S. W. Douglas, Sec.)

A regular session of Chicot County Medical Society was held at Lake Village, September 8. Members present: W. W. Easterling, J. H. Burge, B. C. Clark, W. D. Easterling, E. E. Barlow, S. W. Douglas, W. J. Hutson and E. Baker. Visitors: J. B. Jarvis, Laurel Miss., and J. P. Price, W. R. Garret and J. S. Wilson of Monticello.

Dr. Wilson read an interesting paper on "The Economical Side of Medical Practice." The paper created a great deal of enthusiasm and the society voted that it was worthy of publication in the Journal. Facts were presented in the paper that should make every physician exceedingly proud of his profession.

Dr. A. G. Payne of Greenville, Miss., will read a paper on "Intestinal Obstruction" at the next meeting.

Book Reviews

Nutrition and Diet in Health and Disease.—By James S. McLester, M. D., Professor of Medicine at the University of Alabama, Birmingham, Ala. Second Edition, Revised and Reset. Octavo of 891 pages. Published by W. B. Saunders Company, Philadelphia. Cloth, $8.50 net.

Here is a book we are all interested in, as it pertains to the feeding of man. Recent discoveries are shown concerning vitamins, minerals and deficiency diseases, and the latest information pertaining to diabetes, obesity, gout and the disorders of digestion. New sections that have been added to this edition are those dealing with the toxemias of pregnancy, food poisoning, irritable colon, and protozoan infections.

Easier Motherhood.—A Discussion of the Abolition of Needless Pain. By Constance L. Todd. Published by The John Day Company, New York.

This book is written in the hope that it may bring aid to needless suffering, whatever the cause may be, not by virtue of opinion, but of accumulation of facts. The book tells in lay language of the most available method recently developed and used sucessfully at the New York Lying-in Hospital, and many other hospitals in other cities.

New Pharmacology of the Medicinal Agents in Common Use. By Dr. Stanley Coulter, Dean Emeritus of Purdue University School of Science. Flexible fabricoid binding, 254 pages, 3 3-8 by 6 inches, green edges. Published by Eli Lilly and Company, Indianapolis. Price, 50 cents per copy, prepaid.

The subjects are alphabetically arranged for quick reference. Under each title there is a terse statement of the constituents of the drug, its physiological action, dosage, and brief mention of its more important therapeutic uses.

Primer on Fractures. Prepared by the Cooperative Committee on Fractures under the auspices of Section on Surgery, General and Abdominal and Section on Orthopedic Surgery in cooperation with Department of Scientific Exhibit of the American Medical Association. Second Edition, Revised and Re-edited. Illustrated. Price, $1.00.

Contents: How to Make Plaster-of-Paris Bandages—How to Apply Plaster-of-Paris Bandages—Fracture of the Hip: Neck of the Femur—Fracture of the Hip: Intertrochanteric Fracture of the Femur—Fracture of the Shaft of the Femur: Emergency Treatment—Fracture of the Shaft of the Femur: Bed Treatment—Fracture of the Lower Extremity: General Directions—Fracture of the Tibia and Fibula: Emergency Treatment—Fracture of the Tibia and Fibula: Bed Treatment—Fracture at the Ankle, Pott's Fracture—Compression Fracture of the Spine—Fracture of the Clavicle—Fracture at the Shoulder: Neck of Humerus — Fracture of the Humerus: Emergency Treatment—Fracture of the Humerus: Bed Treatment — Supracondylar Fracture of the Humerus—Dislocation at the Shoulder—Fracture of the Radius, Distal End—Active Movements in Treatment of Fractures—Massage During Treatment of Fractures—Fracture of the Skull—Splints for the Doctor's Automobile —Splints for the Doctor's Office.

The illustrations and legends are free from all necessary details.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1931. Cloth. Price, $1.00. Pp. 100. Chicago: American Medical Association.

This volume contains the collected reports of the action of the Council on Pharmacy and Chemistry on all products which have been found unacceptable or which have been omitted from New and Nonoffieial Remedies during the past year. It contains also the special reports authorized by the Council during the year and preliminary reports on articles which show promise but which are not yet ready for admission to New and Nonoffieial Remedies nor suitable for general use by the medical profession. Among the reports on products found unacceptable are those on Thymophysin, a preparation of posterior pituitary and thymus, advocated as a safe and reliable means of accelerating delivery and marketed under false claims as to its essential action, as to its strength, and as to its safety for mother and child; on Bismuthoidal, claimed to be colloidal bismuth, and marketed with unwarranted claims of value in the treatment of syphilis intravenously; on Frenly Enema Cream, a complex, unscientific mixture, marketed under a therapeutically suggestive name with unwarranted claims of therapeutic value in a host of conditions; on Hayner's Normaline, an unoriginal preparation of formaldehyde and zinc chloride marketed under a noninforming name without a quantitative statement of composition on the label or in the advertising and with unwarranted and misleading claims; on Pernocton, a barbituric acid product marketed under a therapeutically suggestive name and with unacceptable recommendations for intravenous use; on Solution Normet, an unscientific mixture of citrates, marketed with unwarranted claims; on Alqua Water, Calso Water, and Alka Water, irrational, proprietary "alkalizing" mixtures marketed with unwarranted and misleading claims. The preliminary reports on Nucleotide K 96, a preparation of pentose nucleotides which has shown promise in the treatment of leukopenia, and on Carbarsone, p-carbamino-phenyl arsonic acid, proposed for use in amebiasis but needing further confirmatory evidence of value, are both timely and interesting. Perhaps the most noteworthy are the special reports, The Intravenous Use of Barbital Compounds and The Average Optimum Dosage of Cod Liver Oil. The former gives the Council's considered verdict on the dangers and limitations of the use of barbitals intravenously and the latter gives the result arrived at from a questionnaire sent to leading pediatricians.

Clinical Diagnosis by Laboratory Methods. By James Campbell Todd, Ph. B., M. D., late Professor of Clinical Pathology, University of Colorado, School of Medicine; and Arthur Hawley Sanford, A. M., M. D., Professor of Clinical Pathology, University of Minnesota (Mayo Foundation); Head of Section on Clinical Laboratories, Mayo Clinic. Seventh Edition, Thoroughly Revised. 765 pages and 347 illustrations, 29 in colors. Published by W. B. Saunders Company, Philadelphia. Cloth, $6.00 net.

The new matter in this edition includes Corper and Uyei's method for culture of bacteria of tuberculosis, Fairhall's method for the determination of lead, Folin's 1929 method for precipitation of protein from blood and body fluids, his modified method for determination of uric acid in blood, and his revised copper solution for determination of blood sugar. Clark and Collip's method for determination of calcium is given in full. The technic for the Keith, Rowntree, and Geraghty method of determining blood volume and plasma volume is given in detail. The alcohol meal, and the gastric reaction to histamine are considered in the chapter on analysis of gastric content. The Gregersen test for occult blood is included. Although not fully established as a necessary clinical laboratory procedure, there is also included a discussion of the Aschheim-Zondek test for pregnancy, with a promising, simple modification. Attention is called to the importance of agglutination tests in the diagnosis of undulant fever, and tularemia.

Practical Dietetics for Adults and Children in Health and Disease. By Sanford Blum, A. B., M. S., M. D., Head of Department of Pediatrics, and Director of the Research Laboratory, San Francisco Polyclinic and Post Graduate School. Fourth Revised and Enlarged Edition. Published by F. A. Davis Company, Philadelphia. Price, $4.00 net.

The first part of this book refers to the "Dietary for Adults in Health and Disease," followed by a "Dietary for Infants and Children in Health and Disease."

Dr. Blum says that, "Digestibility is an indispensable factor in the success of every dietary. In formulating dietaries for all classes of diseases the digestive system must be taken into consideration, as digestibility of the food is a preliminary to success. The calorie value of the food taken avails nothing if the food is not digested."

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Original Articles

THE EVALUATION OF THE SURGICAL TREATMENTS FOR PEPTIC ULCER*

S. J. WOLFERMANN, M. D.
Cooper Clinic, Fort Smith

In this discussion an attempt is to be made to evaluate the different surgical methods used in treatment of peptic ulcer. To do this first requires that we accept the dictum that some peptic ulcers do require surgery. The acute perforated ulcer is omitted from this discussion.

It is our belief that all ulcers of the duodenum, that are not having recurrent severe hemorrhages and are not perforating, with a possible exception to be mentioned later, are entitled to a careful, definite and rigid six months regime under medical management, with all attendant accessory treatments used to eliminate predisposing and aggravating causes, the first six weeks of which is preferably spent in bed.

A similar regime is used for gastric ulcer, if the *X*-ray report shows the ulcer under 2.5 cm. in diameter, with the important addition of the careful watching recommended in several articles by Frank Lahey (1); that the ulcer be treated medically and watched under the flouroscope. If it regresses in size, medical treatment is continued. If it does not respond to medical management in a few weeks, it is surgical. Or if after apparent complete healing, a rigid scar or dimple persists on *X*-ray, it is also surgical, and particularly so if occult blood persists in the stools. Under medical treatment we include all the various routines of living, accepted diets and medication, including the possibilities that may be held forth for Folgelson's Mucin, and Pitkin's Synodal.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

At any time during medical management, ulcers that show signs of perforating, immediately become surgical. Ulcers that recurrently bleed in fairly large amounts under medical regime are surgical between hemorrhages if the patient's condition permits.

These above rules are quite constant, but in addition there are several conditions that, as time goes on and one gains more experience, are worthy of definite consideration.

A great many ulcers of the greater curvature are malignant in the beginning. Duodenal ulcers or gastric ulcers that have perforated into the pancreas are not susceptible to medical treatment and it is possible, and even probable, that early surgery will lessen the number of morbidity days. As Strauss (2) has emphasized, the deformity of the duodenal cap, seen on *X*-ray as a clover leaf deformity, means fixed posterior wall ulcer and does not respond well to medical regime, and early surgery is advised. And, lastly, if a patient has had one or more definite, careful, medical regimes and still has his ulcer, and ulcer symptoms, and he has been honest with himself in carrying out his medical treatment, he is then a surgical case.

Assuming then that surgery is indicated, what surgery, and what technique? This brings us on to very shaky ground. It is very easy, by quoting from the writings of many expert surgeons and clinicians in this field, to prove that anyone of the various surgical methods in use gives the very best end results and is the best procedure. Taking one method at a time, there is abundant literature at hand to prove each method superior to the other. The technique and method used is dependent a great deal upon where each doctor has attended school, where he has done his intern work, where he has taken his postgraduate work, whose operations he has liked best to watch, whose papers he has enjoyed, and too often, I'm sorry to admit, where he has visited last. To a very small group of

operators the method adopted is the easiest one performed.

It is astounding, in reviewing the literature, to see the vast difference in opinions among many of our great masters, and equally strange to find divergent views by the same author in two articles written only a very short time apart. Again it makes one ponder just a bit to read a very well written paper on the advantage of a certain method applicable to all ulcers and then to see that surgeon use an entirely different method. But such are the conditions at present.

The European writers are, as a rule, much more radical in their surgical procedure than the Americans, though many Americans are more recently doing more radical operations. Is it possible that ulcers in different countries, in different climates, or in different occupations and different social classes behave differently and need different treatment? Or is it a relatively new thing in evolution and are we just beginning to get our immunity?

I am personally convinced that there is some unknown factor connected with these results, for I accept unconditionally that the average well known authors of these articles are careful, conscientious and truthful writers of the conditions in their communities. Still it is hard to reconcile ones views to extreme statements such as Monyihan (3), speaking of the fact that gastric ulcer is always serious. "My choice of operation now always falls upon partial gastrectomy, whenever it can with reasonable safety be performed. The risk is not great—over a period of ten years not more than 2.5 per cent. All things considered, an account being taken of the five years succeeding operations, it is probably a safer operation and is certainly more immediately satisfactory than gastroenterostomy alone. It cannot always be practiced. The condition of the patient may forbid it," etc.

Bloodgood (4): "The literature of the past five years shows the operators in every country are returning to the Billroth I, end to end duodenogastrostomy * * *." "In spite of the remarkable success of the Polya Balfour type of gastroenterostomy and the retrocolic short loop posterior gastroenterostomy for duodenal ulcer, I am impressed, in studying the immediate and permanent results, that the Billroth I, or the Kocher resection and the Finney pyloroplasty are methods of choice, while the others are methods of necessity." "I venture to suggest, as based on personal experience, that for duodenal ulcer of a character forbidding Finney pyloroplasty, resection of the pyloric end of the stomach with the duodenal ulcer, followed by Billroth I anastomosis, be selected instead of a posterior gastroenterostomy."

In the many writings each year from the hands of the Doctors Mayo, Judd, and Balfour many reports in support of gastroenterostomy have appeared with excellent statistical studies to bear out their conclusions. Hardly an issue of the "Collected Papers of the Mayo Clinic and Mayo Foundation" has appeared without such an excellent study, and this past year Balfour (5) has another excellent review of five hundred selected cases with 87 per cent relief, and such excellent relief in 69 per cent that no attention was paid to "diet or habits of living."

And then Maes (6) after a study of the papers of the 1930 Symposium of the American Surgical Association states, "Gastroenterostomy gives excellent results for duodenal ulcer, and only slightly less good results for gastric ulcer. It is abused and it has its percentage of failures, but these facts are no warrant for the routine performance of the difficult and dangerous operation of gastrectomy for all peptic ulcers."

And in between these are all types and gradations of opinions. We have attempted to classify these techniques on the pathology presented and the pathology relieved, admitting that much is yet to be known in the causative factors and the pathology of ulcers, but using what is at hand.

In considering this phase we naturally turn to that wonderful medical work on the chronicity of ulcer by Jos. Larrimore (7). First, that the inherent quality of all tissue is to heal spontaneously; that it can be proven by scars seen at autopsy and when opening the abdomen for other conditions, that ulcers occur, cause little or no symptoms and heal spontaneously. When ulcers do not heal spontaneously, certain factors are present to make them chronic and keep them from healing.

What then are these factors, and if they are known, the type of surgical procedure that is indicated must be the one, all other conditions being equal, that best relieves the chronicity factors? These are:

1. Pylorospasm.
2. Prolonged hypersecretion in contact with the ulcer.
3. Deformity and fixation of the part.
4. Obstruction, either scar or edema.

To those four which are common to both gastric and duodenal ulcer, there must then be added the much disputed question of malignancy with gastric ulcer. There is no uniformity of opinion here, except that most men admit that 10 per cent of gastric ulcers are either malignant at onset, or later. Or, in other words, in every 100 so-called gastric ulcers diagnosed, if the patient lives into the so-called cancer age, ten will show to be carcinoma. Ewing (8) is an exception and put the figures at 2.2, and MacCarty (9), 1930, states "I venture the practical hypothyses that the great majority of gastric carcinomata arise in chronic gastric ulcers and that whereas all chronic gastric ulcers do not become carcinomata, approximately 10 per cent do." If this 10 per cent incidence be accepted, then all a surgical procedure needs to offer is a mortality rate sufficiently less than 10 per cent to be practical, for most all unoperated carcinomata of the stomach are fatal.

Monyihan (10) says, "I lean to the belief that many of the cases of carcinoma of the stomach with which the surgeon can deal successfully have their origin in a chronic ulcer."

We are not so much interested in the pathological discussion of whether gastric ulcers do or do not become malignant, as we are clinically sure that it is impossible to certainly differentiate the two conditions early, and for practical purposes all gastric defects are potential carcinomata until proven otherwise. The relationship of callous ulcer is even more definite as has been emphasized by Scott (11).

Surgery then, to prevent chronicity and permit healing must:

1. Prevent pylorospasm,

(a) By removing the irritable source of the spasm, namely, the ulcer.

Or—

(b) By resection of the pyloric muscle,

Or—

(c) By both a and b.

2. Shorten gastric emptying time,

(a) By preventing pylorospasm,

Or—

(b) By a new opening.

3. Allow free regurgitation of alkaline intestinal contents.

(a) By preventing pylorospasm or by new opening (avoiding the argument as to whether duodenal or jejunal contents are to be preferred).

4. Remove obstruction.

(a) By excision of ulcer.

Or—

(b) By short circuit new route.

5. In gastric lesions remove the 10 per cent incidence of carcinoma,

(a) By excision,

Or—

(b) By questionable indirect methods of relieving irritation.

In addition to these five, we must add the debatable topic of removing part of the stomach, thereby reducing hydrochloric acid secretion. Admitting the bare possibility of causing intestinal disorders and pernicious anemia, we believe this heading important. Therefore:

6. Decreasing hydrochloric acid secretion.

In addition to these things that surgery must do to alleviate and cure the ulcer, it must in a general way:

1. Protect against complications.
2. Prolong life.
3. Prevent recurrent ulceration.

In addition the patient must be treated generally and all focal infection taken care of, and the same instructions as regards rest, worry, alcohol and tobacco, and the usual medical instructions must be carried out. A reasonable post operative regime must be followed. Coincident gall bladder and appendix disease must be removed.

Now let us take the different surgical procedures and techniques used in ulcer surgery and, after first reviewing them from the slides, tabulate them according to whether or not they answer the aforementioned requirements:

The charts No. 1 and No. 2 are undoubtedly open to criticism because there is a vast difference of opinion in many instances. Time and space does not permit much discussion, but an average opinion has been attempted. For example, Eusterman (12) states gastroenterostomy decreases acidity production in the stomach, and Lewisohn (13) is equally emphatic that it does not. Though gastroenterostomy does not remove the ulcer and many men believe it can still bleed or perforate, Balfour (14) states in duodenal ulcer it gives 100 per cent protection against perforation, 91 per cent protection against hemorrhage and 96 per cent against recurrent ulceration, and in gastric ulcer, in a series of 100 cases done as a procedure of necessity rather than election, it gave 99 per cent against perforation, 91 per cent protection against hemorrhage, 97 per cent protection against recurrent ulceration and 94 per cent protection against malignancy.

Similarly, the mortality average is subject to wide variation.

Monyihan (3) had ten years of gastrectomy with a mortality rate of 2.5 per cent and it so usually given 5—7 per cent. Balfour (5) in 1930 gives gastroenterostomy risk as 3 per cent, yet in another report (15) of the work for 1930, of 524 operations of all types for duodenal ulcer, the mortality rate was only 1.14 per cent. In 1931 (16) it was .77 per cent, and so on indefinitely.

As to the success of gastroenterostomy, any percentage you wish may be found in the literature. Balfour (5) shows 87 per cent good results gastroenterostomy. Von Haberer (17) only 37 per cent good results. Schloffer (17) only 50 per cent good. Pannet (17), of London, gives 69 per cent, and Lewisohn (13), New York, 50 per cent. There certainly is a wide variety. Finisterer (17), Von Haberer (18), Lewisohn (13), Strauss (2), all advocate some type of partial gastrectomy. Maes (6), Douglas (19), J. M. T. Finney (20), and the entire Mayo Clinic surgeons, all advise against radical surgery, unless absolutely indicated. One of the greatest points of disagreement is the occurrence of gastrojejunal ulcer. Balfour (5) in 1930 gives incidence as 3 per cent. Lewisohn (13) gives 34 per cent. Mayer (17), 35 per cent. Some wide difference.

The difference in these percentages is due, I am sure, to inability to get accurate "follow-ups" of patients. In my own experience I have seen gastrojejunal ulcers that are being carried as perfect gastroenterostomies by the men who did the original operation. The past month I saw one in a woman operated in

Chart No. 1

	Prevent pylorospasm	Shorten gastric emptying time	Allow free regurgitation of alkaline intestinal contents	Remove organic obstruction	Remove ulcer as irritable source of pylorospasm	Decrease acidity production
Ulcer excision only Wedge, circular or Sleeve Resection	yes partially, indirectly	No except indirectly	No	Yes	Yes	No slight, indirectly
Pyloroplasty Finney	Yes	yes	Yes duodenal	No may be so performed	No may be so performed	No
Pyloroplasty plus excision Du. and pyloric only, Balfour, Mayo, Judd, Horsley, etc.	yes	Yes	Yes duodenal	Yes	Yes	No
Partial gastric resections, Billroth I, and modifications	yes	Yes	Yes duodenal	Yes	Yes	Yes
Gastroenterostomy	No	Yes	Yes jejunal	Yes by short circuit	No	Disputed
Gastroenterostomy plus excision of ulcer	No May be indirectly	Yes	Yes jejunal contents	Yes	Yes	Disputed
Partial gastric resection, Billroth II, and modifications	Yes	Yes	Yes jejunal contents	Yes	Yes	Yes

Dr. Wolfermann—1932.

1919 by a very excellent surgeon, but he has no record of its occurrence. Patients upon whom we operate, and who later get into difficulty, more often seek some other doctor rather than return to the original operator, and the longer the operation holds good without an ulcer occurring, the less chance the original operator has of seeing the patient.

I personally feel that each and all of these operations have their place in gastroenterology. No one operation can serve all purposes. No one operation can be done on all types of patients, even if it is indicated from the pathology, as the patient's physical condition must be considered. A certain number of failures of any of the different types must be ascribed to poor judgment in selecting the particular type for that individual patient. Some bad results are technical errors, for the average general surgeon cannot be a Monyihan nor a Balfour.

It has been well established that gastroenterostomy does not usually give good results in young people; that it frequently fails when there is no obstruction and conversely gives its best results in the presence of obstruction; that it is the ideal operation in the aged or debilitated.

There is hardly anyone now but who believes that a gastric ulcer should be excised. Most men believe that after excision, whether the excision be by cautery, wedge or sleeve method, some further work should be done. If near the pylorus and too much of the stomach is not uselessly sacrificed and the duodenum can be mobilized, then certainly a Billroth I is ideal. If this is not possible, then a Billroth II, Polya or other modification, or a gastroenterostomy is indicated, the patient's condition warranting.

In large ulcers of the lesser curvature and in ulcers of the greater curvature, and sometimes in high up ulcers, the more radical resections of the stomach are indicated. The type of anastomosis that is used is dependent upon the knowledge, preference and technique of the operator, and both the anatomical pathology and the anatomy of the individual patient. I believe that the duodenum is best prepared to handle gastric contents and whenever possible with equal risk and possibility of good results, the duodenum should be used in anastomosis rather than the jejunum.

One should always remember that by virture of the lesion itself, gastric ulcer is always a more serious problem than duodenal procedure. In ulcers of the anterior wall of the duodenum, the factors of chronicity are best served by a pyloroplasty which excises the ulcer. Those techniques recommended by

Chart No. 2

	Prevent hemorrhage	Prevent perforation	Decrease possibility of recurrent ulcer	Decrease possibility of malignancy in G. U.	Restore normal continuity	Average operative mortality
Ulcer excision only, Wedge, circular or Sleeve resection	Yes	Yes	No	Yes	Yes	½ — 1
Pyloroplasty Finney	No	No	Yes partially	No	Yes	½ — 1
Pyloroplasty plus excision Du. and pyloric only, Balfour, Mayo, Judd, Horsley, etc.	Yes	Yes	Yes	If pyloric Yes	Yes	.5 — 1
Partial gastric resections, Billroth I, and modifications	Yes	Yes	Yes	Yes	Yes	2.5 — 5
Gastroenterostomy	Disputed	Disputed	Disputed	No	No	1 — 3
Gastroenterostomy plus excision of ulcer	Yes	Yes	Yes, except gastro-jejunal ulcer	Yes	No	1.8 — 3
Partial gastric resection, Billroth II, and modifications	Yes	Yes	Yes and No	Yes	No	2.5 — 6

Wolfermann—1932.

Balfour (21), Judd (22), Mayo (23), or any other modification, all answers well. This same operation can equally as well take care of pyloric ulcer, or even a gastric ulcer one inch from the pylorus. They have the advantage over the Finney pyloroplasty of removing the ulcer and in those cases in which the duodenal tissue will permit, I believe it is the operation of choice. Its great advantage over gastroenterostomy is that it allows for exploration for multiple ulcers, makes their removal easy, has no greater mortality, and maintains the normal continuity.

Ulcers of the posterior duodenal wall cannot be dismissed so easily. If not too large, or if there is not too much involvement of the pancreas, they may be removed by cautery and stitched from the mucosal side, using the Balfour pyloroplasty. Many European men use a radical operation here, but often this is most difficult and the pancreatic surface denuded gives shock and at times fistula. In extremely involved cases even though it is not the operation of choice, gastroenterostomy is the only practical operation.

When gastrojejunal ulcer is encountered, the ulcer is excised. The gastroenterostomy can be disconnected if the original ulcer has healed and the normal pathway restored. Otherwise some modification of a gastroduodenostomy or the Billroth II or Polya should be done. No one can lay down definite set rules. When the direct etiology of ulcer is discovered, many changes may be made in our procedure and technique.

The recent work of Lindau and Wulff (24) of Sweden, seems to emphasize the part that hydrochloric acid plays in the production of ulcer and if proof continues along this line may increase the interest in removing the hydrochloric acid secreting glands, and in the same journal another article by Ivy, Morgan and Farrell (25) emphasizes the evils that may come by decreasing this same acid. No one knows what the future will bring forth.

Time and space must necessarily limit further quotation. One may refer to the many recent articles of Bloodgood (4), Deaver and Burden (26), Deaver (27), Judd and Nagel (22), Balfour (5-21), Maes (6), Meherin (29), Mayo Clinic volumes, and many others, and see that there is no uniformity of opinion. Gastroenterostomy against partial or subtotal resection has held the lime light. Radical attitudes and laws for either one I believe are personal rather than scientific.

Follow-up records are notoriously inefficient. The operation that I believe is most applicable and has until recently not received its due share of recognition, is some type of excision plus pyloroplasty. The Mayo Clinic Staff for years have been strong exponents of gastroenterostomy, yet Mayo (23), Balfour (21) and Judd (22), have each worked out a well established technique of excision plus pyloroplasty and have had excellent results with these operations with small mortality. Judd (30) reports 1,363 cases with a mortality of .44 per cent. Balfour's (16) most recent report for 1931 shows 450 duodenal ulcers operated upon. Gastroenterostomy 58 per cent, with a mortality of .77 per cent, and 32 per cent with excision of some type of reconstruction with a mortality of .54 per cent. Resection was advisable in 4 per cent. Deaver and Burden (26) are also enthusiastic about excision and pyloroplasty. Bloodgood and Finney (4) are also using it. Lahey (1) favors and has hopes for its future. Horsley (28) advises it. Ivy and Fauley (31) have recently shown experimentally in dogs that certainly in these animals the duodenum is to be preferred to the jejunum as far as post operative ulcer is concerned. I believe excision and pyloroplasty is the operation of choice; that it gives the best results and lowest mortality, and is applicable to at least 50 per cent of surgical duodenal ulcers and gastric ulcers close to the pylorus.

My contention is simply this: That peptic ulcer has a wide variety of manifestations and many different complications; that the treatment of gastric ulcer must be separated from duodenal ulcer, because the incidence of malignaney either at the time of diagnosis or later is sufficient to demand a procedure that provides for excision; that the man doing upper abdominal surgery should be conversant with, and able to do any of these various operations; that he should not be the type who boasts that he always does this or that operation for peptic ulcer, and that before the operation no definite procedure should be decided upon, but that after the abdomen is opened and the pathology discerned, he should then decide upon the procedure which best fits that pathology and that individual patient at that particular instant.

Summary

1. Many conflicting views and statistics are available as to the best surgical procedure for peptic ulcer.

2. Procedures should cure ulcer by removing chronicity factors, and still maintain low risk rate.

3. Various techniques are reviewed by slides.

4. No definite law can be laid down, but the technique used must suit the individual case. Familiarity with all methods is necessary.

5. Pyloroplasty with excision best answers the chronicity factors and should be the operation of choice in duodenal and near pylorus ulcers, if the duodenum can be mobilized. It can be done with lowest risk to the patient and is probably possible in at least 50 per cent of cases.

6. Gastroenterostomy is a valuable operation—does not remove the ulcer and does not restore the natural pathway; is unsatisfactory in the young, most satisfactory in the aged and in gastric ulcer should only be considered when excision is done first.

7. The Billroth I has a very definite place in both duodenal and gastric ulcers, but is a slightly more formidable procedure, though it well answers the factors of chronicity with only a slight increase in risk. The serosa of the posterior wall of the duodenum and the injury to the pancreas must always be seriously considered in posterior wall perforating and perforative ulcers.

8. The Billroth II, the most formidable of all, of necessity has its place in large ulcers, but the condition of the patient is always to be considered first.

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DISCUSSION

DR. A. F. HOGE, Fort Smith: Dr. Wolfermann and I have had many debates on the problem of duodenal and gastric ulcer. We have reversed our standings on the matter. He has now adopted the stand I formerly took and I have adopted the stand he formerly took.

It has been well said that you can prove almost anything by statistics. Someone has said that there are liars, damned liars, and statistics. When you get into the percentage of recoveries from gastric and duodenal ulcers by various procedures the subject is very confusing.

A few years ago, at the Congress of Surgeons in Chicago, I saw Strauss do a beautiful resection for ulcer. He is very partial to resections for this condition. A noted surgeon present made the remark that he had come to the conclusion, after seeing the work of Van Haberer, Finsterer, Horsley and others, that the thing for him to do was to go home and evaluate, or work out, the best medical treatment that he could possibly work out for the treatment of these ulcers. The big majority of stomach and duodenal ulcers will respond to proper medical treatment, if properly carried out over an adequate period of time. Sometimes the best surgical results are not obtained when the patient is operated upon too early in the course of his ulcer history. In other words, a patient with a gastric or duodenal ulcer should not be operated upon by any method until he has had at least a thorough opportunity to recover under competent medical management.

When it comes to the evaluation of the various procedures which Dr. Wolfermann has illustrated and gone over so interestingly I believe that one other factor should be incorporated in the evaluation, and that is: the familiarity with the procedure and the competency of the individual surgeon to do the particular operation.

In view of the fact that gastroenterostomy is more familiar to most of us, perhaps, than radical resection, and in view of the fact that it is a simpler operation carrying a lesser mortality, it should be considered favorably and no more should be done unless one is quite certain that the condition of the patient justifies a more radical procedure. Maes, in an analysis of all the papers read before the American Surgical Association last year, found that the majority of the papers, or practically all of the papers, presented by members of that association spoke in very high terms of the favorable results to be obtained by gastroenterostomy, and unless there are some contraindications resection should not be done. If there is a possibility that the ulcer is malignant then, of course, radical resection should be done.

DR. JEROME S. LEVY, Little Rock: Dr. Wolfermann handled a ticklish subject very well in his competent paper. I am sorry he did not have the time to stress one rather important consideration is his surgical treatment of peptic ulcer. I do not wish to discuss the medical treatment of these cases but there is a certain group of them that requires surgical interference. The operation of choice for the individual patient is that operation which, taking care of the pathology itself, will more nearly restore the normal function, the normal physiology of the part.

The works of Elman and Olch in St. Louis have shown rather conclusively that the main factor in neutralizing the acidity of the gastric content has been the pancreatic juices and not the bile.

Elman, particularly, has canalized the duct of the pancreas. He collected the pancreatic juices in a pouch fastened to the abdomen and the neutralization acid put into the stomach of the dog failed. The stomach emptied slower and the acid values remained high. Whereas, if that pancreatic juice were shunted back into the duodenum, neutralization went on in a normal manner.

Elman has found in those animals that he kept alive in which the pancreatic juice did not become infected, that ulcer of the posterior wall is always found at auptosy after the thirteenth or fourteenth day of drainage of all of the pancreatic juices to the outside.

Olch, taking Elman's work, decided to determine the neutralization of acids in the stomach after the various types of operations on the experimental animals. He found, as will fit in with Dr. Wolfermann's conclusions, that after pyloroplasty or the Billroth I operation, that neutralization of the acid gastric content went on in a manner normal or quicker than normal, and that the emptying time of the stomach was decreased. This experimental evidence substantiates the clinical results that Dr. Wolfermann has obtained.

It seems that the chronicity values of Dr. Larimore, which Dr. Wolfermann reviewed, bears some revision and that we should consider of importance any permanent or defective neutralization produced, first by pylorospasm, 2d, by deformity and fixation, 3, by some mechanism which lowers the alkalinity of the pancreatic juices. This latter is being worked out by Elman and it seems that further study along this line will give us some information concerning the chronicity of duodenal ulcer which we haven't had before.

DR. G. C. WOOD, Grady: This has been discussed from a surgical standpoint entirely. Nothing has been said about the medical side. I had been a subject of this some years back. I had to carry something to eat along with me in my car for a period of about two years. When the pain came on, if I didn't have something to put into my stomach, I just simply had to stop the car and pull out to the side of the road and quit. I tried all the bismuth compounds and tried all the different anti-acids and found nothing gave me any relief; in fact, it caused the condition to be worse because if you put alkali into the stomach it stimulates the stomach to secrete more acid to overcome the alkali you put there. I tried calcium. I decided to see if it wouldn't heal the ulcer. I know that calcium will heal an ulcer. If you don't believe it, try it. I used a preparation of calcium. They used to call that parathyroid compound.

I don't use any diet whatever. I let the man eat anything he wants to eat. I don't pay any attention to diet at all. I tell him he will get better. I don't state any specific time that he will get better but sooner or later he will come to you and tell you that he feels better and he hasn't any more pain. I give him parathyroid three times a day while eating at meal time.

I completely cured myself, which you can judge from my looks. I am not anemic. I have had no return, and it has been a little over four years.

DR. WOLFERMANN, in closing: Due to the shortness of time I was forced to read only half of the paper, but tried to pick out the most essential points, and several things that were brought out in the discussion are in the paper as written. Doctor Hoge, Doctor Jones and I have discussed this thing for many years in our work at the hospital and in our local medical society, and still have our customary points of friendly disagreement.

One point that I wish most to emphasize is this: That the great argument seems to be between the men favoring gastroenterostomy and those favoring some type of resection. The resection men stress prevention of gastrojejunal ulcer and the gastroenterostomy men stress the low operative risk rate. It is my opinion that the man who can do a gastroenterostomy well, if he will try, can do a pyloroplasty equally well with better results, and with a lower mortality rate than his own gastroenterostomy. This is not purely an opinion, but is proven by checking the records of men who are doing both, and certainly in the majority of cases the pyloroplasty gives better results to the patient than gastroenterostomy.

The neutralization of the stomach contents by alkaline regurgitation, as discussed by Doctor Levy, is much appreciated, because I firmly believe it to be the main factor both in the prevention of ulcer and in the cure of ulcer by medical treatment, and it is for this reason that I think pyloroplasty, relieving the pylorospasm and allowing regurgitation, accomplishes its results. As Doctor Jones has already stated, there is no real hyperacidity, but merely prolonged contact of hydorchloric acid with the gastrointestinal wall.

As to the treatment of ulcer with parathyroid extract, I have had no experience and cannot make any comment.

Finally, may I repeat that all chronic ulcers are primarily medical, but medical treatment failing, it should not be prolonged, and surgical treatment is then indicated, and that when surgery is indicated, if pyloroplasty can be performed, and it surely can in over half the cases, it should be given first consideration.

And further, the evaluation of a surgical procedure is best made on the ability of that procedure to relieve those factors producing the pathology rather than upon the statistics of any group of operators.

CYSTS OF THE ANTRUM*

T. E. Fuller, M. D., Texarkana

Cysts of the antrum, while not rare, are uncommon enough to perhaps justify a brief consideration of them, together with a report of two cases which the writer has seen; cases illustrating each of the varieties of cyst found in this region.

These growths belong to the general classification of odontomata. Odontomata being tumors of the jaw which arise from a portion of a tooth follicle. The histological characteristics of the tumor depend on the stage of development of those cells of the follicle from which the tumor originates. At one stage in the formation of the tooth root, the outer layer of enamel epithelium tapers off into the part containing it and disappears and the enamel cells down in the root cease to form enamel. During this change certain groups of these epithelial cells may remain in the embryonic jaw, and are known as cell rests, epithelial rests or paradental epithelial deliris. It is from these misplaced cells that cysts of the jaw spring. These cysts are of two kinds, the Follicular or Dentigerous and the Periosteal or Root Cyst, also called Dental Cysts.

Dentigerous Cysts. This is the less common of the two varieties. They arise from some part of the follicle of a non-erupted tooth. According to the stage of development of the tooth in connection with which the cyst forms, there will be found at operation, or upon examination following operation the whole, or part, of a tooth-like object, which resembles the crown, or even the whole tooth. As a rule, the crown only is found, the root being the least well developed part. They rarely appear during the first dentition, but begin in adolescence, or early adult life, during or after the second dentition, rarely after forty. When they do appear they usually arise from the wisdom teeth. They are a little more common in the lower jaw than the upper. The growth of the cyst is slow. Unlike other cysts associated with new growths, the development of these cysts advances with a new growth of bone in its wall, so that the bony wall is not a mere expansion of a previously existing bony capsule, with subse-

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

quent pressure, atrophy and thinning of the wall, but the shell of bone is formed over the advancing and expanding tumor. The walls of the cysts are somewhat irregular. They may be lined by a layer of fibrous tissue, or an epithelial layer, or often only by granulation tissue. The contents of the cysts besides the fully or partially developed tooth consist of a clear or bloody gelatinous fluid, which may contain cholesterin crystals. The contents of some of the smaller cysts may resemble sebaceous material. The cyst is usually single, but occasionally the tumor mass is composed of multiple cysts.

From the intimate connection with the mouth, infection frequently occurs by way of minute communication around the roots of the teeth. When they occur in the upper jaw these cysts may grow to enormous size. Ordinarily there is little pain associated with their growth, unless they press on some of the nerves in the region, then pain may occur in the distribution of the nerve.

These cysts may be confused with the various solid tumors of the jaw, and it should be remembered that an adamantine epithelioma may be associated with a simple dentigerous cyst, and that a sarcoma may develop in the wall of the cyst. That a differentiation of this condition from a malignancy is not always easy is shown by one of the lantern slides. In case the cyst is infected, it may resemble an empyema of the sinus. A crackling sensation on palpation is characteristic of many of these growths. The *X*-ray is invaluable in diagnosis.

Case Report: A male, aged sixty, came in with the following history; when he was some forty years old, he had a severe attack of pain in the right side of the face, which was called neuralgia. He had a number of the upper teeth pulled on that side, which gave him relief. Occasionally, following that he would have pain, and a swelling would appear above the right upper gingival margin. This was opened several times. A purulent discharge would follow for some days, after which the pain and swelling would subside and the opening close. This sequence of events recurred at intervals, the last attack being some ten days before he was seen. The symptoms had not subsided as quickly as usual, so he became somewhat alarmed, fearing a malignancy. Examination of the nose was negative. There was a fistula into the right antrum which was discharging muco-purulent material. The *X*-ray showed the outer half of the antrum to be clear, the inner half was cloudy, being separated from the outer half by a definite wall. There was an excavation into the hard palate on that side, and in this cavity there was a tooth. A diagnosis of dentigerous cyst was made and operation advised. The ordinary incision as for the Caldwell-Luc operation was made, which disclosed an absence of the bony antral wall over the cyst. The cyst contained pus and granulation tissue. The bony wall of the cyst was removed, and the mucous lining curetted away completely, the tooth was lying free in the cavity which extended into the hard palate. A large naso-antral opening was made beneath the inferior turbinate, and the incision in the gingivo lobial margin closed with silkworm gut. No packing was used, and no irrigating was done during the after treatment. The patient made an uninterrupted recovery, and there has been no recurrence after some five or six years. At the time of this operation I was not familiar with the fact that malignant tumors occasionally accompany these cysts, so the lining which appeared to be completely disorganized from suppuration was not preserved for microscopic examination.

Dental Cysts: These cysts are much more common than the preceding variety. They also are rarely seen in connection with the milk teeth. They are more frequent in the upper than the lower jaw, and lie in connection with the incisor or bicuspid teeth. Dental cysts are inflammatory in origin, beginning as a small mass of granulation tissue firmly attached to the root of a tooth, which because of some irritant has become affected with periodonititis. The periphery of this mass of granulation tissue is firmer than the center which contains many more cells. The cells in the center of the granuloma soften, break down and undergo fatty degeneration, the absorption of which leaves a cavity which is the starting point of the cyst. To begin with, the cyst lies in the smooth, bony cavity of the tooth alveolus. The contents of the cyst are a clear, yellow fluid, containing cholesterin crystals and cast off epithelial cells. If secondary infection occurs, as it not infrequently does, the contents become purulent. The cyst wall may be calcified. The cyst may grow in various directions and oc-

casionally reaches enormous size. In the upper jaw it may grow into the antrum, nose or mouth. To begin with root cysts are symptomless. When they grow to some size they may cause the antral wall to bulge, or produce a swelling of the alveoar process. As the growth proceeds, the walls may be thinned out to where a parchment-like crackle is obtained on palpation. On exploratory puncture, the characteristic yellow fluid will be found. In the upper jaw it is necessary to distinguish between a collection of fluid in the antrum and a root cyst which has grown into the antrum; also between an empyema of the antrum and a suppurating cyst which has perforated into the antral cavity. As elsewhere, the *X-ray* is of the greatest assistance. Exploratory operation may occasionally be required, and one should feel no hesitancy in doing it.

Case Report: The patient was a healthy male, aged twenty-five; about three months before he was seen he had had all of his teeth removed because of pain in the left side of his face. The dentist had intended to fit an artificial denture, but found that he was unable to do so because of a bulging above the left upper alveolar region. This swelling he incised securing a discharge of pale, yellow fluid. The incision did not heal, but continued to discharge. When he was examined there was a fistula from which the fluid drained. The *X*-ray man, to whom we referred the patient, after making the ordinary pictures recognized that he was dealing with an unusual condition, so injected bismuth paste through the fistula, and again made the pictures which we shall show later.

Under general anesthesia an incision was made as in the ordinary Caldwell-Luc operation. This led directly into the cavity of the cyst as the antrum wall had been largely absorbed. The walls of the cyst were smooth and there was no infection. The edges of the incision were trimmed in such a way as to lay the cyst cavity open into the mouth, after the method of Partsch. This, however, did not prove very satisfactory. The cavity did not fill in and the discharge continued to annoy the patient, so a second operation was done, at which time an opening was made through the cyst into the antrum. It was then possible to remove the entire cyst. It came away very much like an egg shell. The mucosa of the antrum was normal. A large opening was made under the inferior turbinate through the naso-antrol wall, and the incision above the alveolar process closed with sutures. Following this there was a rapid and complete recovery.

During the summer my associate, Dr. Roberts, saw a case in a woman, some thirty-five years of age, who gave a history much like the preceding one; pain in left side of her face. Her teeth had been extracted and artificial ones fitted. At intervals there is pain and swelling in the alveolus, followed by a discharge of yellow fluid. The trouble subsides only to recur again. The examination showed the sinuses to be normal, but in the alveolar process on the left side a fairly large granuloma was found which did not encroach upon the antrum. Because of the location the patient was advised to have this granuloma removed by an oral surgeon. From the symptoms and *X*-ray findings, we considered this case as a beginning dental cyst which, if not removed, would continue to grow and go through the various stages incident to the development of such neoplasms.

REFERENCES:

Tumors of the Jaws, . . . Scudder.
Nasal Acessory Sinuses, . . . Hajek.

DISCUSSION

DR. PAUL L. MAHONEY, Little Rock: You have just heard read to you a most interesting paper on the etiology, symptomatology and the treatment of cysts of the superior maxilla. I thought Dr. Fuller's case histories and slides were very interesting. I had fully hoped that Dr. Fuller would have included in his paper inflammatory tumors of the maxillary antrum. Under this head are listed polypi, hydrops, and cysts. It would have been much easier to discuss. It is more than probable that all these changes represent only the results of inflammatory processes in the mucous membrane. There are two types of cysts of the superior maxilla, root cysts (inflammatory cysts) and follicular cysts (disturbances of development from abnormal tooth pulp). Since the widespread use of the X-ray, the incidence of these tumors, especially root cysts, are not as uncommon as formerly thought to be.

The treatment is surgical. Dr. Jackson says that all discussions of diseases of the upper respiratory tract begin and end with a plea for early recognition. These same remarks could apply to these conditions. Certainly early recognition is conducive to less radical surgery which is often necessary to produce a cure in these cases.

I want to thank Dr. Fuller very kindly for the time and effort that I know was required to prepare such an excellent paper.

DR. H. J. G. KOOBS, Rogers: I would like to add a word of appreciation and thanks to Dr. Fuller for his presentation of this topic. I feel like emphasizing the necessity of a careful differential diagnosis in these cases. Surely the removal of the superior maxilla for benign cyst or benign tumor is a calamity and should not occur.

DR. L. H. LANIER, Texarkana: Dr. Fuller's very concise and explicit presentation of antral cysts is appreciated, especially the embryology, histology and pathology, as he has presented it. I never see one of these cases—in fact, any sort of a case of sinus involvement—that I don't almost pray to be a good radiologist. A few years ago I became so disgusted with the character of pictures that we usually get from the average radiologist that I was induced to invest a considerable sum of money in X-ray equipment, and I played with it for about eighteen months and gave it away. Out of all that investment I learned one thing that helps and that was some thing about interpretation, I believe interpretation of the X-ray pictures is something the majority of us don't know anything about. I had the opportunity two years ago to spend two months with Dr. Fraser at Battle Creek and observed his work daily, especially his technic in the use of the displacement method. I have become a very strong advocate of the use of lipiodol. We cannot get along without it. The bony configuration of the face is no more alike inside than it is on the outside; we never see two people exactly alike, and that is because of the—we wouldn't hardly say disparity but a dissimilarity in the bony configuration. Most of the cases that I have seen of this character have had an inter communication with the ethmoid. It is more often found than we are led to believe, perhaps, in the average text book. We so often have ethmoid cells and even have the frontal sinuses draining through the ethmoids into the maxillary sinuses and we so often in these cases have to do not only the classical, naso-antral wall and canine fossae operation, but must also exenterate the ethmoid cells.

We don't have a great many of these cases associated with malignancy but there is a tendency to malignancy. We don't so often have the amount of tumefaction that is shown in Dr. Fuller's pictures. We often have cases where there are cysts without tumefaction. Therefore, they are often overlooked. Of course, on account of the transparency, we get nothing from transillumination. But in a great many cases, we can often get some valuable diagnostic aid from transillumination and X-ray pictures where the bony walls are invaded.

Cyst in the antrum is a distinct and separate pathological condition and in no way associated with suppurative lesions of the sinuses. The pathology is something similar to the cystic condition of the turbinate bone. This cystic condition has been observed in the walls of the ethmoid cells and frontal sinuses and of the antrum of Highmore. No similar condition has been observed in the sphenoidal sinuses. The clinical phenomena are practically the same, regardless of the cavity affected.

The course of the disease is exceedingly slow and devoid of acute symptoms. The swelling and displacement are very gradual, sufficiently so not to cause inflammatory lesions. The condition, then, is usually free from pain, and there is usually absence of tenderness on palpation.

The origin of this cystic condition is probably found in a slow, chronic inflammatory process which occurs in the bony wall and in the lining mucous membrane of the accessory sinuses.

DR. FULLER, in closing: If I had opened up the entire subject of inflammatory diseases of the sinuses, it would take a long time to get through. That is the reason for limiting it purely to cysts of the antrum and not taking up the inflammatory diseases at all.

The last speaker struck the keynote. Of course, it is a matter of diagnosis. Inflammatory disease of the antrum will not cause dilatation of the walls. When we see a dilatation of the walls it is malignancy or cyst, of course malignancy is the more common. I agree fully that it is a calamity to operate on benign cysts, I think, perhaps that excision of the jaw hasn't been anything like as common as it once was. As I suggested in the paper, if you are in doubt a very good idea is to do what the abdominal surgeons do, open up, look and see. That would save the thing that happened in one of the cases referred to.

REPORT OF AN UNUSUAL CASE*

W. T. Lowe, M. D., Pine Bluff

Mrs. S., 20 years of age, mother of one healthy child, age 3, and two dead children—born prematurely—was taken acutely ill, October 11, 1931, when she was seven months pregnant. Her attending physician thought at that time that she had either, a perinephritic abscess of the right kidney or acute appendicitis. On October 15, she gave birth to a seven months baby, which baby died after one week. After the birth of this baby, the mother had a pronounced distension of the abdomen and several days afterwards, a mass appeared in the right side of the abdomen around the region of the appendix. She had temperature, 104. As the distension in her abdomen became less, the mass in her right side became more prominent. She continued a rather high temperature, rigors and sweats and on November 15th I was called to see her with her attending physician, Dr. Kelly, of Sheridan.

On account of conditions over which she had no control, she could not go to a hospital, and we decided that the mass in her right side contained an infected fluid and should be drained. Under local anesthesia, drainage was established just above the superior crest of the ilium. At least a half-gallon of foul pus was drained away. Drainage was very free for several days. This patient improved decidedly during the next month, during which time she had rather free drainage from her side. At one time during this period, she developed a very sore mouth with a very free flow of foul smelling saliva. This lasted about a week, then was better. On

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

December 27, 1931, she came to the Davis Hospital, Pine Bluff, with a temperature 102, pulse 120. At this time, her mouth was beginning to get sore again. The odor was very bad with some ulceration on the inside of her gums. Her Wassermann was negative—negative for angina. Catheterized specimen of urine was negative. Total red cells 2,600,000; white cells, 10,000, and poly count 85 per cent. There was some drainage from the wound in her side. In order to establish a location of the original trouble in her abdomen, two drams of C. P. bismuth subnitrate in two ounces of olive oil was injected into the original opening in her side. *X*-ray pictures made, showed the track to lead down toward the pelvis and not toward the kidney. The next day, under local anesthesia, the appendix was removed. There were no adhesions in the abdominal cavity, so I presume that the original trouble was post peritoneal. I enlarged the original opening and drained all of the oil and bismuth solution that remained in the cavity, sponged out the cavity well with gauze and left the wound open. Two days after injecting the bismuth solution, patient had a slight eruption over the entire body.

Her mouth became worse. Odor very foul, with free flow of saliva. Deep ulcers appeared on inside of gums and upper part of mouth. Temperature went higher, gums became blue, and her bowels, which had been rather loose during the course of her trouble, became worse and were involuntarily in action. She said her mouth hurt her a great deal and she would take food only when she was foreed to do so.

Vincent's angina was then strongly positive and she was given .45 neo salvarsan solution and glucose solution in veins. All kinds of mouth washes were used. Her urine continued negative. Her teeth were now loose and one by one dropped out of her gums. Her mouth became very dry at this time and she became weaker and died on January 24.

Marriages

George Vineent Lewis, Little Rock, to Miss Tommie Folk of Little Rock, in San Francisco, August 26.

Charles Edward Kitchens, DeQueen, to Mrs. Bess Davidson, DeQueen, November 2.

PROLAPSE, CYSTOCELE, RECTOCELE AND TRUE VAGINAL HERNA

James C. Masson, Rochester, Minn. (Journal A. M. A., October 1, 1932), draws attention to the difference between true vaginal hernia with a sac of peritoneum, which is quite rare except as a postoperative condition, and the condition known as gynecologic hernia. As the latter has no peritoneal sac, he speaks of it as a false hernia. The difference in the pathologic picture of a true vaginal hernia and any of the false type is striking. True hernias are spoken of as anterior and posterior, depending on whether the peritoneal sac which is present beneath the vaginal mucous membrane dissects along the anterior or posterior vaginal wall. Under this classification should also be added a much larger group of postoperative hernias, developing after hysterectomy. False hernias of the gynecologic type have no peritoneal sac. When the protrusion is in the anterior wall of the vagina it is called cystocele. When the rectum bulges into the vagina it is a rectocele, and when the uterus itself sinks to a lower level than normal in the vagina, it is uterine prolapse. A fairly accurte idea of the condition is obtained by grading the hernias 1, 2, 3 or 4 according to their size. The author does not consider the types separately as it is seldom that one type exists without some tendency toward the others. If the type is pronounced (graded 3 or 4), it is easily recognized. In the presence of a large cystocele or rectocele the patient will often have to make pressure on the walls of the vagina in order to empty the bladder or rectum, and in the presence of complete prolapse, or procidentia as it is often called, the uterus will lie outside the vulva, and because of the venous stasis, exposure to air and friction as the result of rubbing on the thighs and clothing, will become edematous and ulcerated. However, carcinoma of the cervix seldom develops in such cases. Early in the development of these hernias, however (size graded 1 or 2), they are often overlooked as the cause of abnormal menstruation, bearing down, uncomfortable feeling in the pelvis and lumbosacral backache. As a rule they develop as the direct result of trauma at childbirth, but occasionally one or the other of the conditions, especially a cystocele, will be found without any tendency toward uterine prolapse, usually in nulliparous women.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

REPORT OF THE DELEGATES TO THE A. M. A.

The House of Delegates of the American Medical Association met in the Hotel Roosevelt in New Orleans on Monday morning, May 9, 1932, and continued in session, meeting four times during the week.

After roll call and the adoption of the minutes of the preceding meeting, the address of the Speaker of the House of Delegates was heard. Dr. Warnshius called attention to the readjustments that are now taking place in professional and personal relationships, stressed the importance of the House of Delegates and the responsibilities of its members as the policy-making body of the entire American medical profession, and urged the careful consideration of all proposals. He concluded with the appointment of the reference committees. Dr. W. R. Bathurst, delegate from Arkansas, was appointed to the Committee on Miscellaneous Business.

President E. Starr Judd discussed the functions of the medical profession, stating that, as a rule, medical service now furnished to society is adequate and satisfactory. He mentioned the work of the Committee on the Cost of Medical Care, the studies of the Bureau of Medical Economics of the question of contract practice, the tendency in some specialties to permit too much medical work to be done by nurses, midwives, and technicians, and the functions of the medical profession in public health and preventive medicine, warning its members not to permit this function to be taken over exclusively by the government. He stressed the importance of graduate training in medicine, and the need for some method of determining the qualifications of physicians who wish to engage in special practice, commending the work of the different specialty boards in this field. In a discussion of hospitalization of veterans he said that the Federal Government has built enough hospitals and that unoccupied beds in civil hospitals might well be used to care for veterans that are sick. He concluded his address by pointing out the need of the Association for a new headquarters building.

President-Elect Edwin H. Cary spoke of the dual responsibilities of physicians, their personal relationship to patients, and their civic duty in public health affairs and in activities of lay organizations interested in medical practice. He urged that the Trustees be

authorized to appoint a committee to work with the Bureau of Economics in a study of the trends in medical practice, stressed the value of the association to individual physicians, opposed a reduction in the price of the Journal, and advocated the erection of a new building.

The Secretary, Dr. Olin West, reported a membership of 99,470 in the association. It was his opinion that there was not a large number of desirable physicians in the country that were not members, and opposed membership drives. The number of Fellows of the Association was 64,712. The secretary mentioned an amendment to the Constitution, to make the medical director of the Veterans' Administration a member of the House of Delegates. At a later session of the House, this amendment was defeated.

The secretary said that in some instances members of the association have been officially enrolled in more than one constituent State medical society, particularly in counties near State lines; physicians residing in one State and practicing in another, holding membership in both States. He opposed such dual memberships, and suggested that State societies amend their by-laws to provide that physicians may hold membership in adjacent States only when jurisdiction over their membership has been waived by the county and State societies in which they actually reside. The same recommendation was later made by the Board of Trustees.

The report of the Board of Trustees covered the income and expenditures of the association, the various publications, and the activities of the association as carried on through the different councils, bureaus, and committees. This report is too voluminous even for abstracting. It gives in detail the multitudinous activities carried on by the association during the past year.

The reports of the treasurer and the auditor gave the financial status of the association, the treasurer listing an invested and uninvested reserve fund of $1,819,433.12.

The judicial council reported that the complexities of modern society make it imperative that some changes be made in medical practice, but warned that all suggestions be scrupulously examined to determine their ultimate value. It warned against decisions made on the basis of immediate feasibility. It also suggested that the by-laws of county and State societies were supposed to prescribe definitely the procedure to be followed in appeals from the action of county boards of censors and State councils; if they do not, they should be properly amended.

The Committee on Legislative Activities, and the Auxiliary Committee on Veterans' Legislation gave a lengthy report of their activities during the year; suggested amendments to World War Veterans' Act of 1924 were also presented in the form of resolutions. The reports of the committees were adopted and the committees continued. The resolutions were referred back to the committees without instructions.

Further actions of the Board of Trustees and House of Delegates are summarized as follows:

The board reported that depreciation in the value of the securities in the association reserve made it inadvisable to dispose of them and erect a new building at this time. The House of Delegates approved the "Essentials of a Registered Hospital," and similar essentials for listing of physicians specializing in radiology and clinical pathology presented by the Council on Medical Education and Hospitals. The board declined to lower the subscription price of the JOURNAL, and the House declined to provide for a committee to study birth control.

At the final session, Dr. Dean Lewis of Baltimore was elected president, Dr. Rudolph Matas, vice-president; the other officers of the association and House of Delegates being reelected. Milwaukee was chosen as the place of meeting for 1933.

Respectfully submitted,

D. A. Rhinehart, *Delegate.*

HOW THE RED CROSS HELPS

Unemployment, affecting millions of our fellow countrymen today, demands the expert skill of our nationally authorized relief agency, the American Red Cross.

Recognizing the present economic situation as a national disaster, approximately two-thirds of her 3,600 chapters and 12,000 branches are today dealing with unemployment relief. Stimulating public works projects, job campaigns and opening Red Cross shops for the employment of artisans and the "white collar" group.

Through the distribution, by congressional designation, of 40,000,000 bushels of Federal Farm Board wheat, the Red Cross has touched the lives of no less than 12,000,000 individuals in homes scattered through every State in the Union. With the added responsibility of dispersing 500,000 bales of Government owned cotton, some 90,000 volunteers, assembling in Red Cross workrooms throughout the nation, will soon be engaged upon the mammoth task of making the textiles manufactured from this cotton into garments for our needy citizens.

Figures give no adequate conception of the amount and monetary value of these volunteer activities, but they have made possible the dispatch with maximum promptitude of trainloads of garments, tons of food, and stores of medical supplies into three million homes. Directed by experts from National Headquarters these volunteers have helped the refugees of flood and drought, tornado and blizzard and forest fire to rehabilitate their lives and their communities.

Membership dues subscribed by the American people during the annual roll call between Armistice Day and Thanksgiving provide the finances for this nation-wide humanitarian program.

Communications

Arkansas State Board of Health

Little Rock, November 1, 1932.

To the Members of the Benton and Washington County Medical Societies:

My dear Doctors:

I notice in the October issue of the Journal of the Arkansas Medical Society a criticism of the group immunizations as done in Benton and Washington counties by the County Health Nurses, also a statement as follows: "The opinion was practically unanimous that the State Health Officials are not abiding by the resolution as drawn up by the House of Delegates at the April meeting of the State Medical Society."

Also proposed tentative policies of the County Health Unit by our President, Dr. Will H. Mock.

The proposal by Dr. Mock is consistent with and identical in its purport with the resolution adopted by the State Medical Society in April of this year with certain added provisions which were incorporated in an agreement signed by the State Health Officer and Dr. H. T. Smith, Councilor and Representative of the Desha County Medical Society.

Under the terms of the resolution adopted by the State Society, all infractions or objections thereto were to be filed first with the State Health Officer and any modifications agreed to by the State Board of Health and the local members of the County Society. The only criticism filed with this office by any physicians residing in Benton or Washington counties to this date appears in a letter bearing date October 6th, from Dr. C. L. McNeil, Secretary of the Benton County Medical Society, requesting the County Health Nurse to give notice to the Public Relations Committee longer in advance of any clinics to be held than she did on previous occasion, notice being received on Friday that the clinic would be held on the following Monday. The communication was fine in spirit and pledged the full support of the medical profession of that county. I immediately communicated with the nurse and instructed her to get in touch with the physicians and arrange to give adequate notice. I think it but fair, however, that the physicians should know that Dr. Koobs, President of the Benton County Medical Society, made a demand on the nurse instructing her to submit her program and detailed itinerary for a year in advance. Such a request is obviously impossible.

While the County Health Nurse, Miss Octavia Lowery, in Washington County is not employed by this office, nor under its direction, she was formerly a County Health Nurse under a cooperative budget in Yell County and is now employed by the Tuberculosis Association and paid from local joint funds. She is familiar with the policies of this office, has conferred with the State Health Officer often and it is my opinion that she very much desires to carry out its policies and please every physician in Washington County. We are very glad to count her as one of our collaborators and accept her responsibilities as we do other County Nurses.

It is my judgment that this criticism has arisen because of misinterpretation or unfamilarity of the terms of the resolution adopted by the State Medical Society. I further feel that any charge "That the State

Health Officials are not abiding by the resolution" should be made speeifie. I most emphatieally deny that there has been any intention on the part of the State Health Offieer not to live up to the resolution.

Yours very truly,

C. W. Garrison, M. D.

Personal and News Items

Dr. Porter Rodgers of Searey and Dr. John H. Colay of Cleveland were reeent visitors in Little Roek.

Dr. L. J. Kosminsky of Texarkana, president-eleet of the Arkansas Medieal Soeiety, has returned from a visit to the Hawaiian Islands.

At the fall meeting of the First Counellor Distriet Medieal Soeiety held in Blytheville, Oetober 20, offieers eleeted for the ensuing year were: Dr. C. M. Harwell, Oseeola, president; Dr. J. E. MeGuire, Piggott, viee-president, and Dr. F. D. Smith, Blytheville, seeretary-treasurer (re-eleeted).

Dr. W. F. Smith of Little Roek was reeleeted to the Board of Governors of the Ameriean College of Surgeons for his fourth three-year term. Dr. L. V. Parmley of Little Roek and Dr. Fred Kroek of Fort Smith were eleeted to membership in the College, at the annual eonvention.

Dr. Will H. Moek, president of the Arkansas Medieal Soeiety, has announeed the appointment of the following Advisory Committee for the Woman's Auxiliary; S. J. Wolfermann, Fort Smith, Chairman; Pat Murphey, Little Roek; Frank Kirby, Harrison; G. A. Warren, Black Roek; F. O. Mahony, El Dorado.

At a reeent meeting in Chieago, the direetors of Alpha Omega Alpha Honorary Medieal Seholarship Soeiety adopted the following resolutions in reeognition of the eminent serviees of the late Dr. William W. Root, Slaterville Springs, New York, the founder of the soeiety and seeretary-treasurer sinee its organization in 1902:

1. That all stationery and offieial doeuments of the soeiety bear the words, "Founded by William W. Root, 1902," and

2. That the annual leeture presented eaeh year by a leading medieal seientist, be known as the "William W. Root Alpha Omega Alpha Leeture."

The present offieers of the soeiety are Walter L. Bierring, Des Moines, president; Austin A. Hayden, Chieago, vice-president; Josiah J. Moore, 55 East Washington Street, Chieago, seeretary-treasurer. Mrs. Root will eontinue as assistant seeretary.

The eommittee on extension and poliey eomprises Elias P. Lyon, Minneapolis, ehairman, William Pepper, Philadelphia, Irving S. Cutter, Chieago, Frederiek C. Waite, Cleveland, and Thomas C. Routley, Toronto.

WILLIAM AUGUST PUCKNER

William August Pnekner was born February 24, 1864, at New Holstein, Wiseonsin. He died in the Presbyterian Hospital, Chieago, Oetober 1, 1932. He had been in failing health for a long time and in the hospital some ten weeks.

The ereation of the Counеil on Pharmaey and Chemistry was authorized by the Board of Trustees of the Ameriean Medieal Asso eiation February 3, 1905; the first meeting of the newly ereated eouncil was held at Pittsburgh some ten days later. Professor Puekner, one of the original members, attended that meeting and was aetive in formulating the principles on whieh the eouneil has worked, as expressed in its offieial rules of proeedure. One year later he beeame seeretary, a position of grave responsibility; he filled it well and faithfully for twenty-six years and seven months. Professor Puekner was well equipped for the position he had assumed. A graduate of the Chieago College of Pharmaey, now the Illinois Sehool of Pharmaey, he later beeame Professor of Chemistry in that school. He took a eourse of ehemistry at Harvard University and later studied at the University of Heidelberg. He reeeived the honorary degrees of Doetor of Pharmaey, from the University of Pittsburgh, and Master of Pharmaey, from the Philadelphia Sehool of Seienee. Doctor Puekner was an outstanding ehemist and at the time of his appointment as seeretary of the eouneil he had already won for himself an enviable reputation in the field of alkaloidal ehemistry. He was a eharter member of the Chieago Seetion of the Ameriean Chemieal Soeiety and

was elected chairman of that section in 1895. For some years Doctor Puckner was chief chemist for a pharmaceutical firm known as "Searle and Hereth" and this, added to his experience as professor in the school of pharmacy, gave him an intimate knowledge, from every angle, of the work he was undertaking. On accepting the secretaryship he, of course, gave up his connection with this firm. Doctor Puckner was endowed with an especially good memory which possibly became more acute when he became blind. If he were asked about a product that had been before the council months or years before, without referring to the bulletin or any other records, it was seldom that he was unable to give in detail every action taken that lead to its acceptance or rejection. Under his direction, the weekly bulletin—the medium by which the Council transacts its business—became a model of efficiency. But of much more importance in this council work was his personality, his attributes, his characteristics. While occasionally he had to meet, personally, representatives of firms submitting products, he preferred wherever possible the more deliberate practice of correspondence. In this he exhibited tact, patience, resourcefulness, qualities that were absolutely necessary for a successful solution of the many problems that were continually coming up. In all such cases Doctor Puckner was able to see and appreciate the point of view of the other side, the manufacturer. When his eyes began failing and when he realized that the condition would inevitably result in blindness, Professor Puckner courageously prepared himself to face the handicap. He investigated the practicability of Braille's system for the blind and the typewriter; both of these he used. He kept in touch with current medical and chemical literature, both English and foreign, especially German, by having matter read to him, and in the case of important articles, recorded on the dictaphone for review at home; for his determination to overcome this disability compelled him to work at night as well as day. To those who knew him at his daily work, Doctor Puckner seemed to have dedicated his life to that which seemed nearest to his heart—the success of the council and its efforts to advance scientific therapeutics. With patience in adversity, with sincerity of purpose, wth conscientious devotion, he carried on. His heart was in his work: His life devoted to the cause he served.

The council, individually and collectively, wish to express their high regard and affection for Professor Puckner as a friend and co-worker and admiration for the way he carried on, for his executive ability, for his efficiency in spite of handicap, for his loyalty. In his death, the council has lost a member of unique value: The Medical Profession, a servant who unobtrusively served it faithfully for a quarter of a century.

OBSERVATIONS ON SURGICAL SERVICE AT FORT BENNING

By George P. Muller, M. D.

(Professor of Clinical Surgery, University of Pennsylvania, Philadelphia)

The surgical service at Fort Benning is organized on the usual military plan whereby the chief of the service has complete control of the entire surgical division except in so far as he is under the direction of the commanding officer of the hospital. He has five assistants, one for the urology service, one for obstetrics and diseases of women, one for nose and throat, a radiologist, and one, the senior in rank among the assistants, who does much of the general surgery and acts as a right-hand man for the chief. In so far as I could determine, these men work in perfect harmony and speak enthusiastically of each other's work and ability.

Unless they are attending to unavoidable military affairs, the staff is in attendance from 8 a. m. to 4 p. m. on weekdays and are on call at night. At other times the service is in the charge of a (rotating) officer-of-the-day who lives in the hospital while on duty. There are no interns, as in civil hospitals. Hence, the ward surgeons do all the dressings, write up the records, and make the rounds twice daily.

These men have been graduated from first-class medical schools, have had intern training, have gone through the Army Medical School, and then, step by step, have attained definite duties dependent largely upon their rank. There are, of course, but few outstanding surgeons in the army. It therefore stands to reason that only a few will be trained to perfection, and the remainder, who are of average ability, attain their professional salvation by having considerable leisure

to think and read and plan for their patients. Promotion occurs by the simple process of moving up in rank and not by competitive advancement from hard, successful work.

The facilities for work at Fort Benning and the equipment generally are excellent, although essentially simple. Many of the more elaborate pieces of apparatus seen in civilian hospitals were not noted—but it must be remembered that the hospital is a "station hospital" and patients requiring special treatment are sent to "general hospitals"—for instance, to Walter Reed—for more expert attention. This gives rise to the thought that the system might well be applied to cities provided with many, variously equipped hospitals. In civilian life local pride often condemns the patient to inadequate medical service when he should be transferred to a large, well-equipped institution. For example, I doubt that the surgeons at Fort Benning would try to collapse a chest in a case of chronic empyema, or to perform a partial gastrectomy for cancer, or to attempt a brain operation except for trauma. The smaller army hospitals can transfer the soldier, without cost to him, to such places as have available experts in special fields.

The patients at Fort Benning are receiving excellent surgical care. Every dressing was in perfect order and, at the time of the visit, there was no post-operative infection present in any wound. As each officer on the wards was not overburdened with work, he could give perfect individual attention to the patients. Within certain limits, the quality of the work done was high. The records were as good as those seen in the average small civilian hospitals (the anamnesis was better) except that the findings at the operation were not descriptive. The nursing notes were excellent.

The venereal division of the urological service was managed perfectly and large numbers of men were rapidly, thoroughly and scientifically treated. A follow-up system, otherwise than in the venereal group, was conspicuous by its absence, but it must be remembered that in the army the patient is given the maximum hospital care before discharge and when discharged is believed fit for the duties of the soldier, unless sent on leave.

The advantages of the plan at Fort Benning are (1) the organization provides that a patient may be sent promptly to the hospital to be examined and treated by an expert surgeon; (2) the surgical staff are exclusively interested in the small group of patients under their individual care and there is no delay in the handling of complications or emergencies; and (3) the close association of the entire medical personnel makes for ease and frequency of informal consultation.

The disadvantages of the scheme are inherent in the necessary army plan of preparing for war, and the developing of a system to provide care for the sick and wounded which will work reasonably well despite frequent shifting of personnel. Members of the staff are moved about every three years and have no time to develop habits of work or to perfect themselves in special fields. The experienced surgeons become administrative officers when they reach a certain rank.

The above criticism is only meant to apply to the applicability of this sort of hospital to a community of similar size.

THE AMERICAN COLLEGE OF PHYSICIANS TO MEET IN MONTREAL, FEBRUARY 6-10, 1933

Announcement has been made that the American College of Physicians will hold its Seventeenth Annual Clinical Session at Montreal, with headquarters at the Windsor Hotel, February 6-10, 1933.

Dr. Francis M. Pottenger of Monrovia, Calif., as president of the college, has charge of the program of General Sessions. Dr. Jonathan C. Meakins, Professor of Medicine and Director of the Department, McGill University Faculty of Medicine, is General Chairman of local arrangements and in charge of the program of Clinics. Mr. E. R. Loveland, Executive Secretary, 133-135 S. 36th Street, Philadelphia, Pa., is in charge of general business arrangements, and may be addressed concerning any feature of the forthcoming session, including copies of the program.

"SING ALLELUIA FORTH"

By Philip P. Jacobs, Ph. D.

Director, Publications and Extension, National Tuberculosis Association

To that endless procession who sing songs of joy and praise at Christmas time there is added this year an army of some two billion

Christmas Seals, all joining in the chorus, "Sing Alleluia Forth." The seal for 1932 depicts two happy children holding a songbook and singing lustily the songs of Christmas cheer and good health.

And who has a better right to sing than they and their sponsors, the affiliated tuberculosis associations of the United States!

Here, for instance, is an army of more than 1,500,000 victims of tuberculosis, who are saved from death because the death rate of this disease since the Christmas seal began has declined from 178 out of every 100,000 inhabitants of the United States to 72 in 1930.

And look at the happy faces of more than 150,000 tuberculosis patients who in this year 1932 have been given a chance to get well from tuberculosis in the 633 sanatoria and hospitals! They join the "endless Alleluia" at this Christmas time.

And here too are children, hundreds and thousands of them, who, thanks to the newer knowledge and methods of tuberculosis, exploited through the medium of the Christmas seal, are being tested with tuberculin and the *X*-ray and are being given a new chance to escape in later life the dire consequences of the "Great White Plague," as Oliver Wendell Holmes so aptly named it. How their "Alleluias" ring as they join the Christmas seal army!

Doctors, nurses, social workers, many thousands of them, also "Sing Alleluia Forth," because to them has been given the joy of service for humanity, the opportunity to save precious human lives.

And there are some six million purchasers of Christmas seals, who this year will express their Christmas joy by helping to support the local, state and national tuberculosis associations in their fight against tuberculosis. For them and the rest of the 122,000,000 people in the United States life has been made better, happier and safer because tuberculosis is becoming less and less devastating.

So in these days of depression, we all can "Sing Alleluia Forth" in joyful strain and join the old and new carolers of the Christmas cheer, because we can share in the fight against tuberculosis by buying Christmas seals.

Auxiliary Notes

Mrs. Pat Murphey, president, was hostess to the Auxiliary of the Pulaski County Medical Society for the first fall meeting at a luncheon at Bearskin Lake. Covers were laid for 46 members.

Mrs. William R. Brooksher, Jr., of Fort Smith, second vice-president of the Auxiliary to the American Medical Association, was in Kansas City during the meetings of the Missouri Southwest Clinical Society and was entertained by the Auxiliary.

Mrs. Charles E. Oates, president, wishes to call attention to the meeting of the Auxiliary to the Southern Medical Association in Birmingham, Alabama, November 16th to 18th, and extends a special invitation to all auxiliary members to attend. The Alabama State Auxiliary has planned an interesting program of entertainment and a real good time is expected.

Mrs. C. G. Hinkle entertained the Independence County Medical Auxiliary October 10th. Resolutions from the Negro School in regard to prize given for the best essay on Sanitation were reported. The prize winning paper, written by Rebecca Dunn, was read. The program of the afternoon was "Pioneers of Medicine."

A beautiful luncheon in the fountain room of the Arlington Hotel, Hot Springs, October 17th, was the occasion of the first fall meeting of the Woman's Auxiliary to the Garland County Medical Society. Mrs. Charles H. Nims, president, presided and presented Mrs. P. H. Phillips of Ashdown, president of the State Auxiliary, who brought greetings to the local group and discussed her plans regarding the work of the State and local auxiliaries for the year. Mrs. Charles E. Oates of Little Rock, president of the Southern Medical Auxiliary, and Mrs. James D. Fife, wife of the new commanding officer at the Army and Navy General Hospital, were also honor guests at the luncheon.

Mrs. Walter Jackson Freeman, president of the Woman's Auxiliary to the American Medical Association, after three weeks of illness, died in Philadelphia, October 27, 1932. Funeral services were held in Holy Trinity Church in that city, Saturday, October 29.

The daughter of a physician, the wife of a physician, the mother of two physicians, the life and interests of Mrs. Freeman were peculiarly closely allied to the medical profession. Her father was the late Dr. William Williams Keen of Philadelphia.

The Woman's Auxiliary to the American Medical Association has lost an inspiring and able leader, the medical profession an understanding and devoted friend.

The Saline County Medical Auxiliary met at the home of Mrs. Curtis W. Jones, October 19th. Mrs. Thos. C. Watson, president, discussed her plans for the year and announced that she would include the leaflets sent out by the committee on Public Health and Education in the Auxiliary course of study. A resume of Hygeia will also be given each month. After the meetings, the leaflets and Hygeia will be placed in the library of the local schools. Articles on the control of Communicable Disease are being published in the local paper from time to time.

County Societies

CHICOT COUNTY

(Reported by S. W. Douglas, Sec.)

At the October meeting of the Chicot County Medical Society the following members were present: Clark, Burge, Baker, Barlow, McGehee and Easterling. Drs. Payne and Hirsch of Greenville, Miss., and Mr. Slater of Monticello were visitors.

Dr. Payne presented a paper on "Intestinal Obstruction; Its Early Diagnosis and Treatment." He proved to be an excellent teacher and an interesting entertainer.

The activities of the State Board of Health and the action of the Fourth District Medical Society were discussed. Dr. Slater, Sanitary Inspector of the United States Public Health Service, being present, was requested to outline the duties of his office. He responded with an excellent paper on "Sanitation and Prevention of Disease by Sanitary Measures." The physicians present promised their hearty cooperation and appointed a Public Relations Committee of three members, Drs. J. H. Burge, E. E. Barlow and S. W. Douglas.

Dr. H. T. Smith of McGehee was selected as a special visitor at the next meeting.

OUACHITA COUNTY

(Reported by R. B. Robins, Sec.)

The Ouachita County Medical Society met in regular monthly session, Thursday night, November 3, at the Orlando Hotel in Camden. A banquet preceded the scientific program. Nineteen physicians were present.

The program rendered was as follows:

"Diarrheas in Children, Associated with Respiratory Infections," by R. T. Lucas, Shreveport; "Some Common Skin Diseases," by C. B. Erickson, Shreveport; "Abnormal Personalities," by A. C. Kolb, Hope.

Obituary

CORNEY, ROBERT BLAIR—Dr. R. B. Corney of Little Rock died October 28, 1932. Born in New York, December 17, 1876, he attended New York Schools, and acquired his medical education in New York and Chicago institutions.

Before moving to Little Rock in 1907, Dr. Corney practiced medicine in Van Buren, Crawford County. He served as physician at the State farm at Tucker from 1916 to 1921. On March 1, 1923, he joined the local office of the Veterans' Bureau as a physician, and on February 16, 1931, was promoted to chief medical officer.

He is survived by four brothers and three sisters.

MEDICAL ECONOMICS

Contract practice, a discredit to our profession, except where of necessity organized by large self-contained industrial units, has split the ranks of our profession in various parts of the country. Contract practice is one of the most pernicious economic proposals that has arisen in medicine. If permitted to obtain a foothold, it will place medicine on the same basis as the suit and cloak business. Patients will be contracted to the lowest bidder, and ability will be of secondary interest. Today, the saving feature of medicine is that in a majority of instances the patient seeks medical advice and help where he thinks it is most capably given, and not where it is offered at the cheapest rate.—*Paragraph from article by Frank H. Lahey, M. D. The New England Journ. of Medicine, Oct.* 27, 1932.

Membership Roster of the Arkansas Medical Society for 1932

ARKANSAS COUNTY

Allen, Robert ..... Ethel
Dickens, Homer ..... DeWitt
Drennen, S. A. ..... Stuttgart
Fowler, Arthur ..... Humphrey
John, M. C. ..... Stuttgart
Lowe, W. W. ..... Gillett
Neighbors, J. E. ..... Stuttgart
Park, Chas. E. ..... DeWitt
Poe, Fielding A. ..... Gillett
Rasco, C. W. ..... DeWitt
Swindler, E. B. ..... Stuttgart
Whitehead, R. H. ..... DeWitt
Word, J. F. ..... St. Charles

ASHLEY COUNTY

Barnes, L. C. ..... Hamburg
Cone, A. E. ..... Portland
Crandall, M. C. ..... Wilmot
Gibbs, A. M. ..... Hamburg
Hawkins, M. C. ..... Parkdale
Norman, W. S. ..... Hamburg
Simpson, J. W. ..... Hamburg
Spivey, C. E. ..... Crossett
Wood, J. T. ..... Crossett

BAXTER COUNTY

Morrow, J. J. ..... Cotter
Tipton, W. C. ..... Laguna, N. M.

BENTON COUNTY

Atkinson, R. M. ..... Bentonville
Buffington, G. W. ..... Decatur
Clemmer, J. L. ..... Gentry
Cox, W. T. ..... Gentry
Crockett, C. S. ..... Lincoln
Curry, W. J. ..... Rogers
Duckworth, F. M. ..... Siloam Springs
Duncan, M. W. ..... Centerton
Eubanks, F. G. ..... Decatur
Gulledge, Jno. F. ..... Siloam Springs
Harrison, A. J. ..... Springdale
Horton, C. W. ..... Hiwasse
Hodges, Guy ..... Rogers
Hughes, G. A. ..... Siloam Springs
Koobs, H. J. G. ..... Rogers
Lindsey, J. H. ..... Bentonville
Love, Geo. M. ..... Rogers
McNeil, Clyde L. ..... Rogers
Montgomery, C. C. ..... Kansas City, Mo.
Moore, W. A. ..... Rogers
Peacock, A. L. ..... Gentry
Pickens, E. A. ..... Bentonville
Pickens, W. A. ..... Bentonville
Powell, J. T. ..... Gravette
Williams, J. R. ..... Siloam Springs
Wilson, C. S. ..... Gentry

BOONE COUNTY

Blackwood, J. C. ..... Harrison
Evans, D. E. ..... Harrison
Fowler, J. H. ..... Harrison
Fowler, T. P. ..... Harrison
Gladden, J. G. ..... Western Grove
Jackson, G. I. ..... Harrison
Johnson, J. J. ..... Harrison
Kirby, F. B. ..... Harrison
McCurry, D. K. ..... Green Forest
Moore, W. T. ..... Everton
Owens, D. L. ..... Harrison
Poynor, Wm. H. ..... Harrison
*Routh, C. M. ..... Harrison
Watkins, W. L. ..... Alpena Pass
Weast, L. M. ..... Yellville

BRADLEY COUNTY

Crow, M. T. ..... Warren
Ellis, W. S. ..... Warren
Ellison, Leroy E. ..... Warren
Fike, W. T. ..... Warren
Hartsell, W. L. ..... Warren
Herring, S. R. ..... Warren
Martin, C. N. ..... Warren
Martin, Rufus ..... Warren
Reasons, W. B. ..... Hermitage

CALHOUN COUNTY

Rhine, T. E. ..... Thornton

CARROLL COUNTY

Bohannan, J. H. ..... Berryville
Carter, A. L. ..... Berryville
Harvey, W. A. ..... Oak Grove
Huntington, R. H. ..... Eureka Springs
John, J. F. ..... Eureka Springs
Kemp, Hardy ..... Dallas, Texas
Pace, Henry ..... Eureka Springs
Parker, J. R. ..... Eureka Springs
Webb, J. H. ..... Eureka Springs

CHICOT COUNTY

Baker, E. ..... Dermott
Barlow, E. E. ..... Dermott
Burge, John H. ..... Lake Village
Clark, B. C. ..... Lake Village
Craig, W. A. ..... Eudora
Douglas, S. W. ..... Eudora
Easterling, Walter D. ..... Lake Village
Easterling, W. W. ..... Eudora
Hutson, Wm. J. ..... Eudora
McGehee, E. P. ..... Lake Village

CLARK COUNTY

Bremer, J. P. ..... Point Cedar
Carter, E. E. ..... Arkadelphia
Doane, S. N. ..... Arkadelphia
McLain, J. T. ..... Gurdon
*Moore, J. S. ..... Arkadelphia
*Moore, W. M. ..... Arkadelphia
Ross, H. A. ..... Arkadelphia
Ross, T. T. ..... Arkadelphia
Rowland, W. T. ..... Arkadelphia
Steed, C. J. ..... Gurdon
Townsend, Chas. K. ..... Arkadelphia
*Townsend, N. R. ..... Arkadelphia

CLAY COUNTY

Cohn, Geo. ..... Piggott
Cunning, I. H. ..... Knobel
Custer, B. H. ..... Rector
Custer, W. P. ..... Piggott
Futrell, J. B. ..... Rector
Hiller, J. P. ..... Pollard
Jones, F. H. ..... Piggott
Latimer, N. J. ..... Corning
McGuire, J. E. ..... Piggott
Parrish, W. O. ..... Rector
Poole, W. I. ..... St. Francis
Richardson, M. C. ..... Corning

CLEBURNE COUNTY

Matthews, J. T. ..... Heber Springs

CLEVELAND COUNTY

Adams, T. L. ..... Route 1, Rison
Hamilton, A. J. ..... Rison
Hancock, W. G. ..... Rison

COLUMBIA COUNTY

Baker, J. J. ..... Magnolia
Carrington, H. K. ..... Magnolia
Cooksey, W. P. ..... Magnolia
Horn, W. H. ..... Taylor
Hunt, W. J. ..... R. 3, Magnolia
Jones, T. H. ..... Magnolia
Jordan, T. S. ..... Taylor
McLeod, G. F. ..... Magnolia
McWilliams, C. T. ..... Magnolia
Mullins, G. E. ..... Emerson
Smith, P. M. ..... Magnolia

CONWAY COUNTY

Bruce, W. H. ..... Morrilton
Colay, Jno. H. ..... Cleveland
England, J. F. ..... Morrilton
Goatcher, A. L. ..... Plumerville
Hardison, T. W. ..... Morrilton
Holloway, W. R. ..... Center Ridge
Jones, R. A. ..... Perry
Matthews, E. L. ..... Morrilton
Matthews, J. M. ..... Morrilton
Mobley, H. E. ..... Morrilton

CRAIGHEAD-POINSETT COUNTY

Alcott, Geo. B. ..... Weiner
Altman, J. T. ..... Jonesboro
Baird, J. L. ..... Marked Tree
Bates, Chas. A. ..... Lake City
Burge, H. G. ..... Nettleton
Cohen, O. T. ..... Jonesboro

CRAIGHEAD-POINSETT COUNTY—Continued

*Cothern, Thad ..... Jonesboro
Haltom, W. C. ..... Jonesboro
Henderson, A. G. ..... Jonesboro
Horner, E. J. ..... Jonesboro
Jackson, W. W. ..... Jonesboro
Jernigan, Roscoe M. ..... Jonesboro
Lutterloh, P. W. ..... Jonesboro
McAdams, H. H. ..... Jonesboro
McCurry, John H. ..... Cash
Nisbett, Frank ..... Brookland
Overstreet, W. C. ..... Jonesboro
Ramsey, J. W. ..... Jonesboro
Ratliff, R. W. ..... Jonesboro
Reagan, C. H. ..... Lake City
Stroud, H. A. ..... Jonesboro
Verser, W. W. ..... Harrisburg
Willett, R. H. ..... Jonesboro

CRAWFORD COUNTY

Bennett, B. ..... Kibler
Blakemore, J. E. ..... Van Buren
Bourland, O. M. ..... Van Buren
Dibrell, M. S. ..... Van Buren
Egner, Frank G. ..... Mountainburg
Galloway, Q. R. ..... Van Buren
Grant, S. C. ..... Mulberry
Kirksey, O. J. ..... Mulberry
*Reves, Wm. R. ..... Alma
Savery, H. W. ..... Van Buren
Stewart, Jno. M. ..... Van Buren
Trice, J. B. ..... Van Buren
Wigley, J. A. ..... Mulberry

CRITTENDEN COUNTY

Hare, T. S. ..... Crawfordsville
Irby, J. S. ..... Earle
Matthews, J. H. ..... Earle
McVay, L. C. ..... Marion
Parker, A. C. ..... Clarkedale
Ray, J. R. ..... Earle
Stevenson, B. M. ..... Crawfordsville

CROSS COUNTY

Lipsey, L. H. ..... Wynne
Longest, Ruffin ..... Wynne
Miller, J. S. ..... Parkin
Stewart, Thos. J. ..... Wynne
Wilson, Thos. ..... Wynne

DALLAS COUNTY

*Atkinson, H. H. ..... Fordyce
Cheatham, H. A. ..... Princeton
Estes, E. E. ..... Fordyce
Lisenbee, A. M. ..... Sparkman
Stewart, A. M. ..... Manning
Taylor, J. E. M. ..... Sparkman
Ward, W. P. ..... Fordyce
Wilson, J. F. ..... Dalark

DESHA COUNTY

Grayson, W. B. ..... McGehee
Isom, A. ..... Dumas
Kimbro, C. H. ..... Tillar
MacCammon, Vernon ..... Arkansas City
Miller, J. C. ..... McGehee
Rands, H. A. ..... Desha
Smith, H. T. ..... McGehee
Watts, J. D. ..... Dumas

DREW COUNTY

Collins, A. S. J. ..... Monticello
*Cotham, E. R. ..... Monticello
DeBolt, G. A. ..... Monticello
Gates, S. M. ..... Monticello
*Kimbro, S. O. ..... Monticello
Pope, M. Y. ..... Monticello
Smith, R. N. ..... Collins
Wilson, J. S. ..... Monticello

FAULKNER COUNTY

Brooks, H. C. ..... Conway
Cureton, H. E. ..... Conway
Dawson, R. L. ..... Wooster
DeJarnett, J. W. ..... Conway
Dickerson, C. H. ..... Conway
Downs, J. H. ..... Vilonia
Dunaway, L. S. ..... Conway
Fraser, N. E. ..... Conway
Glover, A. J. ..... Guy
Harrod, Geo. ..... Route 4, Conway

*Deceased.

FAULKNER COUNTY—Continued

Henderson, G. L. — Conway
Kitley, J. R. — Mayflower
Lieblong, J. S. — Greenbrier
McCollum, I. N. — Conway
McDonald, W. T. — Vilonia
McMahan, J. E. — Conway
*Munn, J. B. — Vilonia
Smith, Marcus T. — Conway
Westerfield, J. S. — Conway

FRANKLIN COUNTY

Douglass, Thos. — Ozark
Mooney, D. J. — Altus
Porter, W. C. — Ozark
Post, J. L. — Altus

GARLAND COUNTY

Biggs, Orvis — Hot Springs
Black, T. N. — Hot Springs
Blackshare, Wilbur M. — Hot Springs
Bollmeier, L. N. — Hot Springs
Browne, P. Z. — Hot Springs
Browning, E. R. — Hot Springs
Cassada, B. F. — Hot Springs
Chamberlain, Warren — Hot Springs
Chesnutt, Jas. H. — Hot Springs
Clardy, Floyd — Hot Springs
Coffey, G. C. — Hot Springs
Collings, H. P. — Hot Springs
Connell, W. H. — Hot Springs
Deaderick, W. H. — Marianna
Diederich, V. P. — Hot Springs
*Drennen, Chas. Travis — Hot Springs
Duncan, M. D. — Murfreesboro
Eckel, G. M. — Hot Springs
Ellis, L. R. — Hot Springs
Fletcher, Geo. B. — Hot Springs
*Freeman, I. N. — Hot Springs
Garratt, C. E. — Hot Springs
Hebert, Gaston A. — Hot Springs
Jarrell, Foster — Hot Springs
King, Ossian H. — Hot Springs
Knoefel, W. R. — Hot Springs
Lautman, M. F. — Hot Springs
Laws, W. V. — Hot Springs
Lee, D. C. — Hot Springs
Lutterloh, Chas. H. — Hot Springs
Lynch, H. O. — Hot Springs
McKenzie, E. M. — Hot Springs
MacLaughlin, O. L. — Hot Springs
Martin, L. G. — Hot Springs
Merritt, J. F. — Hot Springs
Minor, J. C. — Hot Springs
Moss, Chas. S. — Hot Springs
Nims, C. H. — Hot Springs
Parks, Wm. P. — Hot Springs
Powers, Allyn R. — Hot Springs
Preston, H. H. — Hot Springs
Proctor, J. M. — Hot Springs
Robertson, J. A. — Hot Springs
Rowland, J. F. — Hot Springs
Scully, F. J. — Hot Springs
Sharpe, S. B. — Hot Springs
Shaw, Ernest — Hot Springs
Shaw, J. B. — Hot Springs
Smith, Euclid — Hot Springs
Smith, O. A. — Hot Springs
Smith, W. K. — Hot Springs
Snider, W. L. — Hot Springs
Speidel, Roy E. — Hot Springs
Steele, S. B. — Hot Springs
Stell, J. S. — Hot Springs
Stough, D. B. — Hot Springs
Strachan, J. B. — Hot Springs
Sullivan, A. G. — Hot Springs
Tarkington, Grayson E. — Hot Springs
Tarleton, F. S. — Hot Springs
Thompson, E. L. — Hot Springs
Thompson, Loyd — Hot Springs
Tribble, A. H. — Hot Springs
Wade, H. King — Hot Springs
Waldrop, J. G. — Hot Springs
Wenger, O. C. — Hot Springs
Wilkins, J. S. — Hot Springs
Winegar, Edwin F. — Chicago, Ill.
Wootton, W. T. — Hot Springs
Wright, Homer K. — Hot Springs

GRANT COUNTY

Cole, C. F. — Sheridan
Hope, O. W. — Sheridan
Kelly, O. R. — Sheridan
Paxton, Robert L. — Sheridan

GREENE COUNTY

Bridges, G. P. — Paragould
Dillman, James A. — Paragould
Ellington, Walter E. — R. 6, Paragould

GREEN COUNTY—Continued

Hardesty, C. A. — Paragould
Hudgins, J. J. — Paragould
Lamb, Jones H. — Paragould
Majors, W. M. — Paragould
Scott, F. M. — Paragould

HEMPSTEAD COUNTY

Allison, Walter G. — Hope
Autrey, J. R. — Columbus
Cannon, G. E. — Hope
Carrigan, P. B. — Hope
Kolb, A. C. — Hope
Lile, L. M. — Hope
*Luck, J. L. — Hope
McDonald, Thos. Lee — Hope
Martindale, Geo. H. — Hope
Martindale, J. G. — Hope
Pickell, F. W. — Hope
Robins, Wm. F. — Ozan
Smith, Don — Hope
Weaver, J. H. — Hope
Wood, R. L. — Delight

HOT SPRING COUNTY

Barrier, W. F. — Malvern
Bramlitt, E. T. — Malvern
Hodges, W. G. — Malvern
McCray, E. H. — Malvern
Norton, J. M. — Donaldson
*Prickett, Chas. — Malvern
Williams, J. M. — Malvern

HOWARD-PIKE COUNTY

Alford, T. F. — Murfreesboro
Breedlove, John C. — Dierks
Dildy, E. V. — Nashville
Gibson, W. M. — Nashville
Holt, J. M. — Nashville
Hopkins, J. S. — Nashville
Hutcherson, D. A. — Nashville
Roberts, J. L. — Nashville

INDEPENDENCE COUNTY

Bone, O. L. — Newark
Brown, H. H. — Charlotte
Churchill, C. A. — Batesville
Copp, Noel — Calico Rock
Craig, M. S. — Batesville
Dorr, R. C. — Batesville
Estes, W. H. — Cushman
Evans, L. T. — Batesville
Gray, E. M. — Evening Shade
Gray, F. A. — Batesville
Haskey, I. M. — Cave City
Hinkle, Chas. G. — Batesville
Hooper, J. M. — Batesville
Jeffery, Paul — Bethesda
Johnston, O. J. T. — Batesville
Kennerly, J. H. — Batesville
Laman, G. T. — Cave City
McAdams, V. D. — Cord
Pascoe, V. L. — Newark
Robertson, S. N. — Sulphur Rock
Rodman, T. N. — Batesville
*Sullivan, E. L. — Poughkeepsie
Wood, O. S. — Salem

JACKSON COUNTY

Best, A. L. — Newport
Causey, G. A. — Swifton
Elton, A. M. — Newport
Erwin, Ira H. — Newport
Gray, C. R. — Newport
Harris, M. L. — Newport
Ivy, Jno. B. — Tuckerman
Jamison, O. A. — Tuckerman
Justis, S. — Swifton
Kimberlin, K. K. — Tuckerman
Morton, R. F. — Swifton
Norris, R. O. — Tuckerman
Owens, M. B. — Amagon
Pierce, W. N. — Tupelo
Watson, E. L. — Newport

JEFFERSON COUNTY

Blankenship, W. H. — Pine Bluff
Capel, C. B. — Pine Bluff
Caruthers, C. K. — Pine Bluff
Chavis, W. M. — Pine Bluff
Clark, Oliver Wm. — Pine Bluff
*Crump, J. F. — Pine Bluff
Cunningham, T. J. — Pine Bluff
Gill, J. F. — Pine Bluff
Gurney, J. O. — Pine Bluff
Hankinson, O. C. — Pine Bluff
Hardeman, D. R. — Texarkana
Hayes, Geo. A. — Pine Bluff
Hughes, A. A. — Pine Bluff

JEFFERSON COUNTY—Continued

Jenkins, J. S. — Pine Bluff
Lemons, J. M. — Pine Bluff
Lowe, W. T. — Pine Bluff
Luck, B. D. — Pine Bluff
Luck, B. D., Jr. — Pine Bluff
McMullen, E. C. — Pine Bluff
Palmer, J. T. — Pine Bluff
Pittman, W. G. — Pine Bluff
Scales, J. W. — Pine Bluff
Shelton, M. A. — Wabbaseka
Simmons, Walter H. — Pine Bluff
Spillyards, J. S. — Pine Bluff
Tankersley, Grace — Pine Bluff
Woods, R. P. — Altheimer

JOHNSON COUNTY

Barger, M. I. — Lamar
Burgess, M. E. — Oraibi, Ariz.
Burgess, Roy E. — Seneca, S. D.
Boen, Albert R. — Clarksville
Hardgrave, G. L. — Clarksville
Hunt, E. H. — Clarksville
Hunt, Wm. R. — Clarksville
Kolb, James M. — Clarksville
Kolb, J. S. — Clarksville
*Manley, R. N. — Clarksville
Siegel, G. R. — Clarksville
Thompson, Ewell — St. Louis, Mo.

LAFAYETTE COUNTY

Armstrong, R. L. — Lewisville
Baker, F. E. — Stamps
Keith, A. W. — Stamps
McKnight, J. F. — Walnut Hill
Youmans, F. W. — Lewisville

LAWRENCE COUNTY

Ball, C. C. — Ravenden
Guthrie, T. C. — Smithville
Hatcher, Wright W. — Imboden
Hughes, J. C. — Hoxie
Kendall, W. S. — Strawberry
Land, J. C. — Walnut Ridge
McCarroll, H. R. — Walnut Ridge
Neece, T. C. — Walnut Ridge
Robinson, W. J. — Portia
Stephens, J. M. — Williford
Warren, G. A. — Black Rock
Watkins, Geo. Max — Walnut Ridge

LEE COUNTY

Bean, W. B. — Marianna
Beaty, W. S. — R. 1, Aubrey
Chaffin, C. W. — Moro
Crawford, W. S. — Marianna
Hodge, N. C. — Marianna
Russwurm, S. C. — Hughes
Wall, E. D. — Marianna
White, H. L. — Rondo
Williamson, O. L. — Marianna
Wilsford, A. L. — Moro

LINCOLN COUNTY

*Corney, R. B. — Little Rock
Dixon, Chas. W. — Gould
Ringgold, G. W. — Gould
Thiolliere, A. C. — Gould
Wood, G. C. — Grady

LITTLE RIVER COUNTY

Castile, Herman — Foreman
Phillips, Paul H. — Ashdown
Ringgold, J. W. — Ashdown
*Vaughan, W. E. — R. 2, Ashdown
York, W. W. — Ashdown

LONOKE COUNTY

Beaty, S. S. — England
Benton, T. E. — Lonoke
Brewer, John F. — Kerr
Callahan, E. A. — Carlisle
Corn, F. A., Jr. — Lonoke
Crowgey, W. B. — Scott
*Cunning, John R. — Lonoke
Ellis, C. S. — Lonoke
Harris, Ernest H. — Coy
Kelly, M. D. — Lonoke
*Scruggs, G. W. — Humnoke
Street, H. N. — Lonoke
Utley, F. E. — Cabot
Ward, O. D. — England
Watson, Asa C. — Seminole, Okla.
Wells, John B. — Scott

MADISON COUNTY

Beeby, Chas. — Huntsville
Hill, N. J. — Hindsville
Youngblood, Fred — Huntsville

*Deceased.

MILLER COUNTY

Beck, E. L. ..... Texarkana
Collom, S. A. ..... Texarkana
Dale, R. R. ..... Texarkana
Fuller, T. E. ..... Texarkana
Hibbetts, Wm. ..... Texarkana
Hunt, Preston ..... Texarkana
Kirkpatrick, R. R. ..... Texarkana
Kittrell, T. F. ..... Texarkana
Kosminsky, L. J. ..... Texarkana
Lanier, L. H. ..... Texarkana
Lee, A. G. ..... Texarkana
Lennard, F. M. ..... Texarkana
Longino, H. E. ..... Texarkana
Mann, A. H. ..... Texarkana
Middleton, B. C. ..... Texarkana
Murry, H. E. ..... Texarkana
Robins, R. R. ..... Texarkana
Smiley, H. H. ..... Texarkana
Smith, J. K. ..... Texarkana
Smith, Wm. Decker ..... Texarkana
Webster, H. R. ..... Texarkana
Williams, J. T. ..... Texarkana

MISSISSIPPI COUNTY

Barksdale, Oscar ..... Wilson
Campbell, J. H. ..... Joiner
Fox, V. R. ..... Manila
Grimmett, W. A. ..... Blytheville
Harwell, C. M. ..... Osceola
Hosey, N. R. ..... Joiner
Hudson, T. F. ..... Luxora
Husband, F. L. ..... Blytheville
Johnson, I. R. ..... Blytheville
Johnson, R. L. ..... Bassett
Massey, L. D. ..... Osceola
Saliba, J. A. ..... Blytheville
Sheddan, W. J. ..... Osceola
Sims, H. C. ..... Burdette
Smith, F. D. ..... Blytheville
Stevens, C. C. ..... Blytheville
Tidwell, J. L. ..... Dell
Tipton, Paul L. ..... Blytheville
Usrey, M. O. ..... Blytheville
Washburn, A. M. ..... Blytheville

MONROE COUNTY

Boswell, W. L. ..... Clarendon
Bradley, W. T. ..... Blackton
Dozier, F. S. ..... Brinkley
Dunklin, A. J. ..... Clarendon
Gilbrech, A. H. ..... Clarendon
Henry, C. A. ..... DeWitt
Martin, W. H. ..... Holly Grove
McKnight, C. H. ..... Brinkley
McKnight, E. D. ..... Brinkley
Murphey, N. E. ..... Clarendon
Nederhiser, M. I. ..... Brinkley
Terry, P. E. ..... Holly Grove

MONTGOMERY COUNTY

Freeman, W. D. ..... Mount Ida
McLean, J. H. ..... Caddo Gap
Robbins, J. D. ..... Oden

NEVADA COUNTY

Buchanan, A. S. ..... Prescott
*Buchanan, G. A. ..... Prescott
Campbell, C. A. ..... Delight
Chastain, J. S. ..... Prescott
Dickey, A. B. ..... Prescott
Hesterly, J. B. ..... Prescott
Hesterly, S. J. ..... Prescott
Hirst, O. G. ..... Prescott
Shell, E. E. ..... Prescott

OUACHITA COUNTY

Byrd, E. J. ..... Camden
Clemens, J. P. ..... Mt. Holly
Early, C. S. ..... Camden
Hollingsworth, G. F. ..... Hampton
Jameson, J. B. ..... Camden
Kennerly, R. C. ..... Bearden
McGill, S. D. ..... Camden
Partee, Norf G. ..... Stephens
Plunkett, C. M. ..... Elliott
Powell, B. V. ..... Camden
Purifoy, W. A. ..... Chidester
Rinehart, J. S. ..... Camden
Ritchie, C. E. ..... Ogemow
Robins, R. B. ..... Camden
Rushing, J. L. ..... Chidester
Sanders, Geo. P. ..... Stephens
Thompson, H. F. ..... Bearden
Thompson, S. A. ..... Stephens
Word, N. S. ..... Camden

*Deceased.

PHILLIPS COUNTY

Baker, J. P. ..... West Helena
Brown, E. T. ..... Lexa
Bruce, W. B. ..... Marvell
Butts, J. W. ..... Helena
Cox, Allen E. ..... Helena
Cox, Aris W. ..... Helena
Ellis, J. B. ..... Helena
Fink, M. ..... Helena
Henry, Morris ..... Helena
King, W. C. ..... Helena
Nichols, J. W. ..... Helena
Orr, W. R. ..... Helena
Rightor, H. H. ..... Helena
Russwurm, W. C. ..... Helena
Storm, Geo. R. ..... West Helena

POLK COUNTY

Hawkins, B. H. ..... Mena
Hilton, J. G. ..... Mena
McElroy, F. Q. ..... Mena
Mullins, F. C. ..... Wicks
Watkins, P. R. ..... Mena

POPE COUNTY

Berryman, L. D. ..... Russellville
Gardner, L. ..... Russellville
Griffin, E. P. ..... Atkins
Hood, Robt. ..... Russellville
Scarlett, Wm. P. ..... Russellville
Smith, L. M. ..... Russellville
Smith, R. L. ..... Russellville
Tate, A. B. ..... Atkins
Webb, G. C. ..... Russellville

PRAIRIE COUNTY

Adams, Edward ..... DeValls Bluff
Crockett, W. H. ..... Biscoe
Crow, L. M. ..... Des Arc
Gilliam, J. C. ..... Des Arc
Lynn, J. R. ..... Hazen
Parker, Jim ..... DeValle Bluff
Parker, Luke ..... DeValls Bluff
Porter, T. G. ..... Hazen
Wilson, Jno. G. ..... Ulm

PULASKI COUNTY

Aday, L. C. ..... Little Rock
Allen, Estes ..... Little Rock
Allen, Hoyt R. ..... Little Rock
Arkebauer, C. A. ..... Little Rock
Atkinson, Shelby ..... North Little Rock
Bailey, W. E. ..... Little Rock
Barrier, L. F. ..... Little Rock
Bathurst, Wm. R. ..... Little Rock
Bennett, B. A. ..... Little Rock
Blakely, R. M. ..... Little Rock
Bond, S. P. ..... Little Rock
Brooks, C. M. ..... Little Rock
Brown, T. D. ..... Little Rock
Browning, H. W. ..... Little Rock
Calcote, R. J. ..... Little Rock
Caldwell, Robert ..... Little Rock
Carruth, O. A. ..... Little Rock
Carruthers, F. W. ..... Little Rock
Cazort, Alan G. ..... Little Rock
Chesnutt, C. R. ..... Little Rock
Choate, H. L. ..... Little Rock
Compton, John N. ..... Little Rock
Coon, A. B. ..... Little Rock
Cosgrove, K. W. ..... Little Rock
Crawford, J. B. ..... Little Rock
Crawford, S. R. ..... Little Rock
Cummins, Bryce ..... Little Rock
Cunningham, J. C. ..... Little Rock
Daly, M. G. ..... Little Rock
Davis, J. C. ..... Little Rock
Day, E. O. ..... Little Rock
Delaney, J. P. ..... Little Rock
Dibrell, J. L. ..... Little Rock
Dibrell, Jno. R. ..... Little Rock
Dishongh, H. A. ..... Little Rock
Dorbandt, B. W. ..... Little Rock
Dunaway, W. C. ..... Little Rock
Eubanks, R. M. ..... Little Rock
Fly, T. M. ..... Little Rock
Fulmer, S. C. ..... Little Rock
Fulmer, P. M. ..... Little Rock
Gann, Dewell, Jr. ..... Little Rock
Garrison, C. W. ..... Little Rock
Gray, A. F. ..... Little Rock
Gray, Oscar ..... Little Rock
*Gray, W. E. ..... Little Rock
Gray, Wm. E., Jr. ..... Little Rock
Harris, R. P. ..... Sykesville, Md.
Hastings, Gordon ..... Little Rock
Hawkins, Martin C. ..... Little Rock
Hayes, John H. ..... Belmont, Wis.
Hayes, J. M. ..... Little Rock
Higgins, Homer A. ..... Little Rock
Hinkle, S. B. ..... Little Rock
Hoge, S. F. ..... Little Rock

PULASKI COUNTY—Continued

Holmes, G. M. ..... Little Rock
Howell, A. R. ..... North Little Rock
Howze, H. H. ..... Little Rock
Hudson, E. M. ..... Little Rock
Hurrle, F. E. ..... Little Rock
Hundling, H. W. ..... Little Rock
Hyatt, D. T. ..... Little Rock
Jackson, Geo. F. ..... Little Rock
Jewell, I. H. ..... Paris
Jobe, A. L. ..... Little Rock
Johnson, Glenn H. ..... Columbus, Ga.
Jones, H. F. H. ..... Little Rock
Jones, J. E. ..... Little Rock
*Jones, W. E. ..... Little Rock
Junkin, S. P. ..... R. 4, Little Rock
Kilbury, M. J. ..... Little Rock
Kirby, A. C. ..... Little Rock
*Kirkham, Z. L. ..... Little Rock
Kory, R. C. ..... Little Rock
Kriesel, W. A. ..... Little Rock
Lamb, W. A. ..... Little Rock
Law, R. A. ..... Little Rock
Lenow, Jas. H. ..... Little Rock
Levy, Jerome S. ..... Little Rock
Lewis, Geo. V. ..... Little Rock
McCaskill, M. E. ..... Little Rock
McCormack, G. A. ..... Little Rock
McNeil, N. P. ..... Little Rock
*McKinney, A. T. ..... Little Rock
McRae, W. M. ..... Little Rock
Mahoney, P. L. ..... Little Rock
March, C. J. ..... Fordyce
Matthews, W. M. ..... Little Rock
May, C. B. ..... Little Rock
May, Jno. R. ..... Roland
Melson, Madeline ..... Little Rock
Melson, O. C. ..... Little Rock
Miller, W. H. ..... Little Rock
Moore, Geo. B. ..... Little Rock
Mountford, A. H. ..... North Little Rock
Murphey, Pat ..... Little Rock
Oates, Charles E. ..... Little Rock
O'Connor, F. J. ..... Little Rock
Parmley, L. V. ..... Little Rock
Patterson, R. Q. ..... Little Rock
Pauli, A. J. ..... Little Rock
*Pemberton, E. M. ..... Little Rock
Ponder, E. T. ..... Little Rock
Pryor, R. E. ..... Little Rock
Reagan, G. W. ..... Little Rock
Reagan, L. D. ..... Little Rock
Reed, C. C. ..... Little Rock
Regnier, W. A. ..... Little Rock
Rhinehart, B. A. ..... Little Rock
Rhinehart, D. A. ..... Little Rock
Riegler, N. W. ..... Little Rock
Roe, Joseph ..... Little Rock
Rogers, C. D. ..... Little Rock
Rogers, F. O. ..... Little Rock
Rosenbaum, C. A. ..... Little Rock
Russell, Allen R. ..... Little Rock
Sadler, W. L. ..... Little Rock
Sanderlin, J. H. ..... Little Rock
Sanford, S. M. ..... Little Rock
Saxon, R. L. ..... Little Rock
Scott, Homer ..... Little Rock
Shearer, W. F. ..... Little Rock
Sheppard, J. P. ..... Little Rock
Shipp, A. C. ..... Little Rock
Shuffield, Jos. ..... Little Rock
Smith, Morgan ..... Little Rock
Smith, Randolph T. ..... Little Rock
Smith, W. F. ..... Little Rock
Snodgrass, W. A. ..... Little Rock
Spitzberg, Irving J. ..... Little Rock
Staton, R. H. ..... Little Rock
Stover, A. R. ..... Little Rock
Strauss, A. W. ..... Little Rock
Summers, J. A. ..... North Little Rock
Switzer, D. M. ..... North Little Rock
Tenzel, Pauline ..... Little Rock
Thatcher, Harvey S. ..... Little Rock
Thomas, P. E., Jr. ..... Little Rock
Thompson, G. D. ..... Little Rock
Vinsonhaler, Frank ..... Little Rock
Wallace, R. A. ..... Little Rock
*Walt, D. C. ..... Little Rock
Wassell, C. McA. ..... Little Rock
Watkins, Anderson ..... Little Rock
Watkins, John G. ..... Little Rock
Wayman, A. K. ..... Little Rock
Wayne, J. R. ..... Little Rock
Webb, V. T. ..... Little Rock
Weny, N. F. ..... Little Rock
White, E. H. ..... Little Rock
Wilkes, E. H. ..... Little Rock
Wilson, Paul W. ..... Little Rock
Witt, C. E. ..... Little Rock

RANDOLPH COUNTY

Brown, J. W. — Pocahontas
Hamil, W. E. — Pocahontas
Hughes, W. E. — Pocahontas
Loftis, J. R. — Pocahontas
Ryburn, J. W. — Pocahontas

SALINE COUNTY

Blakely, M. M. — Benton
Buckley, E. A. — Bauxite
Buffington, T. E. — Benton
Davis, W. S. — Owensville
Gann, Dewell, Sr. — Benton
Jones, C. W. — Benton
Ward, W. W. — Alexander
Watson, Thos. C. — Benton
Wright, J. D. — Mabelvale

SCOTT COUNTY

Bevill, Cheves — Waldron
Burnett, J. A. — Waldron
Duncan, B. W. — Parks
Duncan, F. R. — Waldron
Duncan, L. D. — Waldron
Holitik, Geo. F. — Blue Ball
Jones, Paul — Mound Valley, Ks.
Sorrell, L. B. — Waldron

SEARCY COUNTY

Cotton, J. O. — Leslie
Daniel, Sam G. — Marshall
*Dickens, G. W. — Leslie
Fendley, E. G. — Leslie
Henley, J. A. — Marshall
Leslie, J. O. — Marshall
Rogers, Wm. F. — St. Joe
Wood, E. W. — Marshall

SEBASTIAN COUNTY

Amis, J. W. — Fort Smith
Benefield, C. E. — Fort Smith
Benefield, J. H. — Fort Smith
Billingsley, C. B. — Fort Smith
Blair, A. A. — Fort Smith
Brooksher, W. R., Jr. — Fort Smith
Buckley, J. H. — Fort Smith
Bungart, C. S. — Fort Smith
*Chapman, A. S. — Fort Smith
Coffman, J. S. — Lavaca
Dorente, D. R. — Fort Smith
Dorsey, H. C. — Fort Smith
Eberle, Walter G. — Fort Smith
Epler, E. G. — Fort Smith
Foltz, Jas. A. — Fort Smith
Foster, M. E. — Fort Smith
Freer, B. W. — Fort Smith
Fuller, S. J. — Magazine
Goldstein, D. W. — Fort Smith
Hall, Chas. W. — Greenwood
Hoge, A. F. — Fort Smith
Holt, C. S. — Fort Smith
Honomichl, O. R. — Hackett
Jeffery, T. E. — Fort Smith
Jeffery, Vogel — Fort Smith
Johnson, Hugh — Fort Smith
Johnson, J. E. — Fort Smith
Johnson, M. C. — Fort Smith
Jones, E. B. — Hartford
Jones, I. Fulton — Fort Smith
Kennedy, C. H. — Fort Smith
*King, H. C. — Fort Smith
Krock, F. H. — Fort Smith
Means, C. S. — Fort Smith
Moulton, E. C. — Fort Smith

*Deceased.

SEBASTIAN COUNTY—Continued

Moulton, Herbert — Fort Smith
Nowlin, R. R. — Booneville
Redman, Pierre P. — Fort Smith
Riddler, P. A. — Fort Smith
Riley, J. D. — State Sanatorium
Rose, Willis F. — Fort Smith
Scott, M. H. — Jenny Lind
Smith, H. H. — Fort Smith
Southard, J. D. — Fort Smith
Southard, J. S. — Fort Smith
Stevenson, E. H. — Fort Smith
Stevenson, J. E. — Fort Smith
Stubbs, S. P. — Fort Smith
Taylor, J. M. — Fort Smith
Ware, Bertram L. — Greenwood
Willingham, J. J. — Booneville
*Wilson, Cons P. — Fort Smith
Wolfermann, S. J. — Fort Smith
Woods, G. G. — Huntington
Wyatt, R. B. — Sulphur Springs

SEVIER COUNTY

Archer, C. A. — DeQueen
Clingan, A. J. — DeQueen
Dickinson, R. C. — Horatio
Graves, J. C. — Lockesburg
Hendrix, B. E. — Gillham
Hopkins, R. L. — DeQueen
Jones, I. G. — DeQueen
Kitchens, C. E. — DeQueen
Norwood, M. L. — Lockesburg
Yates, E. W. — Gillham

ST. FRANCIS COUNTY

Bogart, J. A. — Forrest City
Bogart, Nall — Forrest City
Boggan, P. P. — Forrest City
Chaffin, E. J. — Hughes
McClendon, H. L. — Palestine
McCown, N. C. — Forrest City
McDougal, J. F. — Forrest City
Rush, J. O. — Forrest City

UNION COUNTY

Cathey, A. D. — El Dorado
Cullins, Jno. G. — No. Chicago, Ill.
Dickerson, D. A. — Berryville
Elkins, W. N. — Junction City
Falvey, J. C. — El Dorado
Ferguson, J. V. — El Dorado
Fincher, L. G. — El Dorado
Henry, S. S. — Smackover
Irby, Frank L. — Wesson
Levine, David — El Dorado
McCall, Daniel — Lawson
McGraw, S. J. — El Dorado
Mahony, F. O. — El Dorado
Mitchell, J. G. — El Dorado
Moore, J. A. — El Dorado
Munn, E. J. — El Dorado
Murphy, Geo. D. — El Dorado
*Murphy, G. W. — Strong
Murphy, H. A. — El Dorado
Muse, P. H. — Junction City
Newton, W. L. — Smackover
Niehuss, H. H. — El Dorado
Patterson, W. L. — El Dorado
Purifoy, L. L. — El Dorado
Purifoy, Leslie A. — El Dorado
Ritterman, Henry — Norphlet

UNION COUNTY—Continued

Rowland, R. E. — El Dorado
Russell, M. V. — El Dorado
Sheppard, J. M. — El Dorado
Slaughter, J. Henry — Norphlet
Slaughter, J. W. — El Dorado
Smith, D. V. — Huttig
Smith, J. M. — Smackover
Tarver, Vernon — Huttig
Vines, C. L. — El Dorado
Vines, F. P. — El Dorado
Wharton, J. B. — El Dorado
White, D. E. — El Dorado
Wozencraft, W. L. — El Dorado

WASHINGTON COUNTY

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Brand, W. M. — Springdale
Briley, J. H. — Springdale
Callen, C. B. — Fayetteville
Ellis, E. F. — Fayetteville
Fowler, W. A. — Fayetteville
Gilbert, A. A. — Fayetteville
Gregg, A. S. — Fayetteville
Harr, H. T. — Fayetteville
Hathcock, Alfred — Fayetteville
Hathcock, Alfred, Jr. — Fayetteville
Hathcock, P. L. — Fayetteville
Houston, Hugh — West Fork
Kaemmerling, Gerhard — Fayetteville
McCormick, E. G. — Prairie Grove
Mock, W. H. — Prairie Grove
Morrow, F. R. — Fayetteville
Paddock, C. S. — Fayetteville
Richardson, Fount — Fayetteville
Riggall, Cecil — Prairie Grove
Roberts, D. C. — Fayetteville
Robinson, J. A. — Summers
Sisco, C. P. — Springdale
Walker, J. W. — Fayetteville
Wallace, Jno. M. — Fayetteville
Wentz, H. B. — Elkins
Wood, H. D. — Fayetteville

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Abington, E. H. — Beebe
Allbright, S. J. — Searcy
Clark, W. A. — Bald Knob
Felts, W. R. — Judsonia
Hardy, F. P. — Center Hill
Harrison, A. G. — Searcy
Hudgins, A. H. — Griffithville
Parker, Orlie — Searcy
Peeler, C. M. — Pangburn
Sloan, J. R. — Garner
Spain, A. L. — Letona
Tapscott, S. T. — Searcy

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Brewer, E. F. — Augusta
Brown, E. B. — Cotton Plant
Dungan, C. E. — Augusta
Fraser, R. L. — McCrory
Hays, J. F. — McCrory
Maguire, F. C. — Augusta
Morris, J. W. — McCrory
West, J. H. — Grays
Wilkins, W. T. — Cotton Plant

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Gillum, A. D. — Ola
Millard, Roy I. — Dardanelle
Montgomery, H. L. — Gravelly
Pool, Thos. J. — Ola

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Original Articles

CLINICAL FEATURES OF PELVIC ENDOMETRIOSIS*

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Endometriosis is a serious pelvic disease concerning which little was known up to about ten years ago. The pathology has now been worked out very well, and we know that this process is responsible for the major portion of those dense adhesions found in patients without definite pelvic infection. The clinical significance, however, of this pathological process—that is, its importance in every-day treatment and operative work—has not been sufficiently recognized. I shall review briefly the development of knowledge in regard to this interesting disease and the principal pathological changes it causes, and then pass on to its clinical significance in gynecologic diagnosis and treatment.

The first thing that started the investigations which finally made clear the life history of this strange growth, was the discovery that some uterine myomata contained glands, in addition to the muscle and connective tissue. This particular type of myoma, which contained glands, was designated adenomyoma. Further study developed that the adenomyoma differs from the ordinary myoma, not only in containing glands but in two other important characteristics. First, it shows a tendency to grow into the surrounding tissue instead of pushing it aside, that is, it is not well encapsulated like the regular uterine myoma but tends to infiltrate the surrounding uterine wall and become diffuse. Second, it is not confined to the uterus, but is found in many different situations in the pelvis and lower abdomen even as high as the umbilicus.

Next arose the question as to how there came to be glands among the muscle bundles. Where did the glands come from? A careful study of the adenomyomata near the uterine cavity indicated that those glands came from outward growth of the glands of the adjacent endometrium. In some cases it was possible to establish a direct continuity of the glands in the endometrium with those in the tumor. But there were adenomyomata in the outer part of the uterine wall having no connection whatever with the endometrium. There were also similar tumors in distant situations, not even connected with the uterus. How did the glands, resembling uterine glands, get into those tumors distant from the endometrium? It was eventually discovered that there were certain cysts of the ovary containing such glands, and that wherever they came in contact with the uterine wall there were ingrowths of these glands, forming an adenomyoma in the outer portion of the uterus. Again, leakage from these cysts carried gland cells which caused similar glandular ingrowths wherever they lodged.

The tracing of the connection between these cysts of the ovary and adenomyomata forms an interesting chapter in medical history. Cullen, in his illuminating writings on uterine adenomyoma and the distribution of the same in the pelvis and lower abdomen, called attention to the fact that they occasionally occur in the ovary. It was noticed that in the ovarian adenomyoma the glandular elements greatly predominated, the muscle development being of secondary importance. This gave a much more cystic tendency to ovarian adenomyoma than to those occurring in the uterus. Finally Sampson, through his laborious and brilliant work, was able to establish practical identity of the adenomyoma of the ovary with a certain type of hemorrhagic ovarian cyst not yet presenting muscle tissue.

It had long been noted that old blood was frequently found in small cysts of the ovary. Aside from the normal blood-filled corpus luteum (which undoubtedly constitutes some of the "blood-cysts" removed by inexperi-

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enced operators), blood from hemorrhage may be found in various types of cyst—the follicular cyst, the corpus luteum cyst, and the ordinary proliferating cysts (pseudomucinous and serous). These hemorrhages are all accidental. Sampson was able to show, however, that there is a particular type of cyst in which the extrusion of blood into the cavity is not accidental, but a part of the regular development. This cyst is lined by a tissue made up of glands and stroma resembling the endometrium of the uterus. Not only does this tissue look like endometrium, but it acts like endometrium—that is, it menstruates. Along with the uterine endometrium it passes through the regular phases of menstruation. Blood is extravasated into the tissue and passes into the cavity. In the closed cyst there is no outlet for this menstrual blood, so it accumulates and distends the cyst. The retained blood undergoes more or less disorganization, and constitutes the dark chocolate-colored material which so often escapes from the cyst as the adhesions are broken in operative removal.

The accumulating contents and the advancing growth of the endometrial tissue, cause early perforation of the cyst and leakage. The escaping contents carry elements of the endometrial lining, which implant themselves on adjacent peritoneal surfaces and grow into the walls of the organs—reproducing there endometrial tissue similar to the original. This results in fusing of the affected ovary and cyst to adjacent structures. The leaking cyst contents may gravitate to the posterior peritoneal culdesac, where they form strong adhesions and ingrowths, binding the rectum to the posterior surface of the uterus.

The dense adhesions to the small intestinal coils and sigmoid and rectum and other structures, seriously complicate the operation for removal. The early perforation with adhesions and the chocolate-like contents are the striking clinical features of these cysts, and Sampson designated them as "perforating hemorrhagic cysts" and also as "chocolate cysts." As the essential pathological feature is the endometrial tissue in the wall, the term "endometrial cyst" has now been widely adopted. As previously mentioned, in many cases the aberrant growth of endometrial tissue is not confined to the ovarian cyst, but spreads to various other structures throughout the pelvis. This condition of widespread growth of aberrant endometrial tissue is appropriately designated "pelvic endometriosis."

Considered clinically pelvic endometriosis constitutes one of the very serious diseases of the child-bearing period—serious on account of the recurring pain and disabilty, and serious because of the complications frequently associated with operative relief.

Diagnosis

In the first place, endometriosis is a disease of the age of ovarian activity, for its development and progress are dependent on the same ovarian hormones that cause the normal menstrual changes in the uterine endometrium. As the initial lesions are minute and their progress slow, it probably takes several years for the process to reach the stage of clinical symptoms. Consequently the lesions which have advanced sufficiently to cause pain and disability are found principally in individuals from 30 to 45 years of age.

The frequency of this disease is rather startling. Sampson found it in 43 per cent of abdominal operations in patients between the ages of 30 and 50. However, in some of these cases, operated on for other conditions, the endometrial involvement was very slight. In estimating the probable number of individuals with aberrant endometrial tissue in the pelvis, we must consider also the probable large number of persons in whom the involvement is so slight or so quiescent that it does not give rise to symptoms requiring them to consult a physician. Our present knowledge indicates that the smaller lesions are very erratic and uncertain in growth and may remain quiescent indefinitely.

Even with the progressive lesions there may be but few symptoms. It is surprising what extensive adhesions may form without symptomatic disturbance. For example, an ovarian cyst that has given the patient very little discomfort may at operation show extensive and dense adhesions. On the other hand, some patients suffer much pain and disability, the progressive pathological process giving rise to marked symptoms and examination signs.

The bedside recognition of pelvic endometriosis is not as easy as might be inferred from the clear-cut pathological changes. The difficulty in diagnosis comes from the fact that, though there may be definite symptoms and examination signs, these same symptoms and

signs occur in other more common diseases. Consequently, the more common disease is usually decided on as the diagnosis, and endometriosis is encountered unexpectedly at the operation.

It may be said in a general way that endometriosis gives rise to the symptoms of chronic inflammation, without the infection and pus formation. There is the fixation of structures and induration and tenderness, and usually a definite mass as in inflammation. There is exacerbation of the pain and distress at the menstrual time with subsidence between, as often happens in chronic pelvic inflammation. So closely does the symptomatic picture resemble chronic inflammation, or a tumor with inflammation, that such diagnosis is usually made.

However, if we forego the hazardous practice of jumping at a diagnosis from one or two prominent symptoms, and take the trouble to make a critical analysis of the features of the clinical picture, we are likely to notice some things about the case that do not fit in with a purely inflammatory condition. Such anomalous symptom or sign arouses suspicion that we are dealing with something more than inflammation or perhaps something entirely different.

The following are the items likely to arouse such suspicion.

1. Absence of definite evidence of infection. As the patient tells her story of pain and disability with fairly comfortable intervals, we naturally think of chronic pelvic inflammation. But when the attempt is made to determine the time of infection and the character of the same, we are not successful. The history gives no definite indication of gonorrhoeal infection nor of puerperal infection. The objective findings also include nothing that might not be due to non-inflammatory irritation and infiltration. There is no tell-tale focus of chronic inflammation in the vulvovaginal glands or in Skene's glands or in the cervix. There is nothing in the temperature or leucocyte count definitely indicating infection. I am speaking of uncomplicated endometriosis. Of course, a patient may have infection along with endometriosis, in which case the symptoms of both diseases will be present.

2. Fixation without evident cause. As mentioned under pathology, fixation of adjacent structures by ingrowths is a marked feature of endometriosis. This may take place so gradually and with so few symptoms that it is encountered as a surprise at the examination. When extensive fixation is found in the pelvis without a history of inflammation or preceding operation, endometriosis is to be suspected.

One very common form of this fixation is adherent retrodisplacement. There may be simply the fixation of the retrodisplaced uterus or there may be also the characteristic infiltration of the culdesac area under the displaced uterus. This infiltration if at all extensive is likely to present a nodular "shotty" feel due to irregular islands of epithelial growth. When the areas of endometrial growth advance to the stage of menstruation, small collections of blood form in them. These feel hard at first but as they become larger or nearer the vaginal surface, their cystic character may be recognized.

Another form of fixation is adherent ovarian cyst. A small or medium ovarian cyst, which should be freely movable in the absence of inflammation, is found adherent, without any history of infection or other adequate cause for the fixation.

3. Disproportion between the pain and the palpable lesion. This disproportion may be in either direction. As previously mentioned, there may be no pain or history of disability, in spite of the fact that examination shows a marked lesion with extensive fixation. This in itself indicates that the fixation is due to some process different from inflammation.

On the other hand, there may be marked pain and disability, much more than to be expected from chronic inflammation without abscess formation. In endometriosis marked pain is usually due to tension from extrusion of blood into a filled cavity or to peritoneal irritation from leakage. Consequently it presents certain characteristics, which are taken up later.

The important feature here emphasized is that the pain bears no definite relation to the size of the mass, often being very severe with only a small mass. In fact, severe pain has been reported in cases of endometriosis not yet advanced sufficiently to give any palpable mass. On this account, endometriosis is recognized as one of the causes of dysmenorrhoea without palpable lesion—the diagnosis

depending on the time and eharaeter of the pain.

4. The time and eharaeter of the pain. Keeping in mind the pathology of the disease, the eharaeteristie feature being a elosed sae with menstruating endometrium, the relation of the pain to menstruation beeomes elear. It starts with the premenstrual swelling some days before menstruation and eontinues severe till praetieally the end of menstruation. The pain from tension of the sae will eontinue as long as additional blood is being extruded into the sae from the aberrant endometrial tissue lining.

With a ehronie inflammatory mass or a tumor, the diseomfort is likewise more marked at the menstrual time, but there is a difference in two partieulars. First, the pain of ordinary menstrual swelling about an inflammatory mass or tumor usually beames less as the flow is well established, while the pain of endometriosis is likely to eontinue severe all through the flow. Again, with ordinary menstrual swelling, the diseomfort is only moderate and is diminished by rest and other measures that diminish general pelvie eongestion, whereas the pain of endometriosis may be severe in eharaeter and persistent in duration in spite of palliative measures.

In eases of obstruetive dysmenorrhoea from eervieal stenosis the pain may be very severe, but it comes only with the onset of the flow and disappears as soon as the flow is well established. Also, it is likely to be more intermittent and eramp-like than the persistent pain of inereasing tension in a elosed eavity. Again, dysmenorrhoea from eervieal obstruetion usually dates from the first menstruation, whereas that from endometriosis is an acquired dysmenorrhoea eoming on later.

5. Miseellaneous points. In regard to the history, sterility and reetal pain and dyspareunia are of rather frequent oeeurrenee in endometriosis.

The sterility may have been absolute or there may have been ehildren years before. Usually several years have elapsed sinee the last pregnaney. Evidently impregnation is interfered with in endometriosis a long time before the proeess reaehes the stage of pain and disability that ealls attention to it.

The ineidenee of reetal pain or pressure-diseomfort is due of eourse to the frequent involvement of the euldesae area. When the euldesae endometriosis extends to the eonnective tissue and the reetal wall, there is very likely to be deep reetal diseomfort, off and on, espeeially at the menstrual time.

Oeeasionally dyspareunia appears, and gradually inereases. This pain in eoitus is more likely to be present when endometriosis involves the euldesae area, though it may be absent with extensive involvement of this region. Dyspareunia due to endometriosis appears without any apparent eause sueh for example as infection. It is usually slight at first and increases gradually with the increasing infiltration and fixation of the tissues about the cervix. It is likely to vary eonsiderably at different times, being most marked usually near menstruation.

In addition to the speeial points in the history there are also eertain speeial examination findings that are frequently assoeiated with endometriosis.

Fibroid tumor in the uterus is a eommon finding. Sueh a nodule may be an ordinary eneapsulated myoma or it may be an adenomyoma. Endometriosis is to be suspeeted in any ease of small uterine myoma with marked fixation without a history of infeetion.

Retrodisplaeement of the uterus is found in a large proportion of eases of endometriosis. This may be beeause retrodisplaeement favors the development of endometriosis or beeause endometriosis-adhesions tend to pull the uterus into baekward position. Perhaps both faetors enter into the matter—the first in some eases and the seeond in other eases. At any rate, adherent retrodisplaeement is found so frequently in endometriosis that that disease is to be suspeeted, espeeially if there is no history of infeetion to aeeount for the fixation of the displaeed uterus.

Culdesae infiltration, eausing palpable induration of the vaginal wall just baek of the eervix, is a distinetive feature in eertain eases of endometriosis. Involvement of the vaginal wall in this situation in the ehild-bearing period is nearly always due to pelvie endometriosis or to inflammation. Consequently if infeetion ean be exeluded, endometriosis beeomes probable. This probability is inereased if there is evidenee of endometrial involvement higher in the pelvis. In some eases the proeess in the posterior vaginal wall goes on to the formation of distinet "shotty" nodules. If these approaeh the surfaee so that the bluish eolor of the eontained blood ean be

seen in the spaculum examination, the diagnosis becomes positive.

An associated endometrioma of the umbilicus or of the inguinal region or in an abdominal-operation scar, indicates the nature of the process going on deeper in the pelvis.

Occasionally cystoscopic examination will show the characteristic small blood-cysts in the bladder wall. Such an examination is especially helpful in differentiating between endometrial infiltration and carcinomatous infiltration in patients approaching the menopause.

Proctoscopic examination is useful in patients with perirectal involvement. The induration from involvement of the culdesac and rectovaginal septum may bring up the question of carcinoma of rectal origin. In endometriosis proctoscopic examination will show normal rectal mucosa, except where the hemorrhagic cystic process has extended through the rectal wall.

In addition to differentiation from ordinary chronic inflammation, pelvic endometriosis must be differentiated from a tumor with complicating inflammation, from pelvic tuberculosis, and from ectopic gestation.

Treatment

The treatment of pelvic endometriosis is based on the general principles of treatment of non-malignant conditions—that is, conservative treatment when that gives sufficient relief, and radical treatment if serious symptoms persist. Minor degrees of endometriosis may pass unnoticed or give rise to only moderate dysmenorrhoea relieved by sedatives. When the pain and disability become more marked and definite infiltration and fixation of structures can be made out, radical measures are indicated. The radical measures available are operation and irradiation.

Operation. A mass in the pelvis causing persistent pain and disability in spite of conservative measures should ordinarily be removed, whether it is endometriosis or chronic inflammation or a new growth. Usually there is some question as to the exact nature of the mass until the abdomen is opened and the diseased area subjected to inspection and direct palpation. The most important points to settle before deciding on operative treatment are, first, that there is a definite pathological process not sufficiently relieved by palliative measures, and second, that the persisting pain and disability are serious enough to warrant the risk of an operation. In such a case if the patient is in good general condition, operative removal of the enlarging mass should be carried out promptly before some local or general complication increases the hazard.

Endometriosis is dependent on ovarian activity, and ablation of ovarian influence ordinarily stops the process. Then why not eliminate ovarian activity by irradiation (radium or X-ray), instead of subjecting the patient to operation? Operation is ordinarily better than irradiation for three reasons—first to preserve ovarian activity if possible, second, to eliminate malignancy and, third, to eliminate a mass causing pressure disturbance.

Preservation of ovarian influence. In the childbearing period it is important to preserve ovarian activity. Though the condition appears to be endometriosis, it may be found at operation to be chronic inflammation or ectopic gestation or a new growth, any one of which could be removed and leave ovarian influence intact.

Even if the pathological process proves to be endometriosis, it may be limited to structures that can be removed and still preserve ovarian tissue. An involved corpus uteri may be removed by supravaginal hysterectomy. Endometrial ovarian cysts can sometimes be removed with preservation of an uninvolved portion of an ovary. In a patient under 35 years of age it is worth some risk to preserve ovarian influence for the several years still remaining before the natural menopause. If the small areas of endometriosis left at such operation should show serious activity later, the ovarian influence may then be eliminated by irradiation.

Elimination of malignancy. This indication for operation assumes importance in patients approaching the age of forty. There is necessarily some uncertainty as to the nature of the process going on in the mass. The supposed endometriosis-mass may be malignant, either primarily or as a later complication. In either case it is advisable that positive knowledge be acquired promptly, and also that the tumor be removed if practicable.

Elimination of mass. In well marked endometriosis there is usually a mass causing pressure disturbance. It may be in the form of an ovarian cyst or it may be a uterus enlarged by adenomyoma. In either case the abnormal structure is likely to cause troublesome symptoms as long as it remains, hence

the preferable plan of treatment is ordinarily that which removes the mass.

Irradiation Treatment. Irradiation by radium or X-ray stops ovarian function and thus eheeks the reeurring menstrual exaeerbation and progress of the endometriosis. It does not remove the ovarian cyst or other mass, whieh in itself may keep up diseomfort and disability. However, irradiation may be useful in the following two classes of eases.

Poor Operative Risk. In a person seriously handieapped from the operative standpoint, irradiation may be used to eheck the increasing pain and disability from endometriosis. This applies espeeially of course to patients approaehing the menopause, in whom the continuation of ovarian activity is not so important as in earlier life.

The preferable form of irradiation to employ depends on the partieular conditions present. When the endometriosis is principally in the uterine wall (adenomyoma) a radium application within the uterus is the best plan, beeause concentrated irradiation is given at the seat of the process and without the extensive intestinal irradiation oeeasioned by X-ray. Also, radium applieation in the uterus works in well with diagnostic eurettage which is needed to exclude malignancy and which may be carried out at the same time. On the other hand, if the endometriosis is seattered widely in pelvis and unaccompanied by uterine bleeding indicating eurettage, deep X-ray therapy is the preferable form of irradiation.

Irradiation treatment is employed on a tentative basis. It may give suffieient relief in a case of endometriosis, and it may not. Also, the possibility of an error in diagnosis is to be kept in mind, and if satisfaetory result is not seeured by irradiation in a reasonable time, operation is to be again considered.

Post-operative Activity. When aetivity persists in an area of endometriosis after operation, irradiation treatment is to be employed. In some cases where it was thought best to leave an ovary, there may be new development of endometriosis or renewed activity in some small area left. Occasionally there is persistent aetivity even when both ovaries have been removed along with the endometrial cysts. In either case irradiation treatment is to be employed.

The following is a ease in point. A patient, aged 46, was sent to me by a general surgeon on aecount of uterine bleeding and an increasing pelvie mass whieh appeared some months after an abdominal operation which he had done for her. Both the patient and the surgeon were eonsiderably alarmed on aeeount of the possibility of malignaney. The operation, four months before, was appendectomy and removal of an ovarian chocolate cyst with preservation of the other ovary. The patient recovered without disturbanee and had two normal menstruations, and then the bleeding started.

Examination showed a firm fixed mass the size of a small fist oeeupying the eentral pelvis. The mass seemed to be mostly enlarged uterus with surrounding adhesions. A diagnosis of endometriosis with adenomyoma of the uterus was made, and I decided on radium treatment for the adenomyoma with eurettage to exclude malignaney. This treatment stopped all ovarian aetivity, and later the enlarged uterus diminished in size considerably.

In other eases of postoperative aetivity, with predominating peritoneal and connective tissue envolvement instead of uterine, X-ray treatment was the form of irradiation used to stop the advancing endometriosis.

Special Dangers

Experience has shown that operation for pelvie endometriosis earries certain special dangers. These dangers are due to the extensive dense adhesions caused by the unusual process. These adhesions are not simple agglutination of surfaces, as in inflammation, but real tissue ingrowths into the walls of adjaeent structures, such as small intestine, sigmoid and reetum. The two speeial dangers are, first, a tear into the bowel and, seeond, postoperative intestinal paralysis and peritonitis.

Injury to Bowel. In endometriosis the adherent walls are fused by tissue-growth and cannot be separated easily, as ean inflammatory adhesions. Any attempt to separate them earries danger of a tear into the intestinal tract. This faet must be kept in mind in trying to enucleate the mass to be removed. Rough or hurried separation by palpation only is to be avoided, as the line of cleavage may extend into the bowel lumen. Dense adhesions should be carefully separated under sight as well as toueh, and the line of separation should not be allowed to eneroach on the intestinal wall.

It is important also to limit the separation as much as possible, breaking adhesions only where neeessary to allow safe removal of the abnormal mass. The cyst wall should be removed as far as praeticable, especially the endometrial lining. It is permissible to leave some of the outer layer of the cyst-wall, if necessary for the safety of the intestine or other attached organ.

In cases requiring removal of the uterus, the adherent rectum can usually be separated down far enough to permit supravaginal hysterectomy. An attempt to separate dense adhesions in the culdesac sufficiently low to allow complete hysterectomy may cause a tear into the rectum. It is safer as a rule to leave the culdesac adhesions and the cervix. If there should be a complicating cervicitis that persists, the cervix may be taken out later from below with much less danger.

Post-operative Peritonitis. Another serious problem presented by these cases of endometriosis, is to get the patient through the postoperative stage without intestinal paralysis and peritonitis. Just what factor it is that makes these patients so prone to post-operative intestinal paralysis and peritonitis is not altogether clear, for there is no primary infection. A plausible theory is that the extensive damage to the intestinal walls first interferes with peristalsis, causing post-operative intestinal paralysis, and second, favors escape of colon bacilli into the damaged area, causing peritonitis. Whatever the cause, the tendency to fatal post-operative peritonitis is painfully evident to those engaged in treating these patients. Several trying experiences in the early years of my handling of these cases convinced me that this disease constitutes one of the most serious pelvic conditions for which operation is required in the childbearing period.

The first of these experiences I recall vividly because of the many days of anxiety before the patient was past the acute danger, and also because of the difficulty encountered later in closing the intestinal opening which had been made for drainage during the intestinal paralysis. At the primary operation typical endometriosis was found, with dense adhesions and the "chocolate" contents leaking from the cyst. There was no pus and no evidence of infection, consequently no drainage was employed, the abdominal wound being closed entirely as in all noninfected cases. In the next few days the patient developed intestinal paralysis with persistent reverse peristalsis and fecal vomiting. This was finally overcome by opening the distended intestine and draining away the contents. This maneuver permitted use of the stomach and upper intestine for purposes of nourishment. The post-operative course constituted a long hard siege, but the patient survived the acute symptoms and the intestinal tract finally resumed its normal functions. Then came the problem of closing the large artificial fistula remaining from the intestinal drainage. This proved difficult but was finally accomplished, and the patient eventually made a complete recovery. In the second experience a young married woman in good general health, had a painful pelvic mass requiring operation. The operation revealed bilateral ovarian cysts with extensive adhesions and "chocolate" contents. There was no pus and no evidence of infection. The cysts were enucleated, and the abdomen closed as usual. After operation intestinal paralysis developed and a low-grade peritonitis. The peritonitis increased, an acute nephritis developed, the patient went from bad to worse, and finally died in spite of peritoneal drainage and intestinal drainage and everything else that was done.

In studying over these two experiences I decided to drain all cases of extensive endometriosis or of extensive adhesions suspicious of endometriosis. I have since followed this rule, and with great satisfaction. The results have been so uniformly good, that since adopting drainage I do not dread to encounter these cases, as I formerly did.

Not long after adopting the drainage rule in these cases, I was called hurriedly one night to a hospital to see in consultation a patient who was then dying of peritonitis. A young married woman of prominent family had been subjected to operation for a troublesome pelvic mass. No pus was found and after the intra-abdominal work was finished the abdomen was closed with expectation of prompt recovery. The development of fatal peritonitis was a great surprise and shock to all concerned. Inquiry revealed that extensive dense adhesions were encountered in the operation and some cysts having typical "chocolate" contents.

Some months ago, happening to meet a colleague in one of our hospitals, he said to me

abruptly, "Do you drain all cases of endometriosis?" On my replying that I drained in all cases of any extent, he stated "I wish I had"—and then related to me the details of a case of endometriosis in which the patient had just died of post-operative peritonitis.

DISCUSSION

DR. R. L. SAXON, Little Rock: I hardly feel capable of adding anything to this eminent gynecologist's paper. I have never had the opportunity of an acquaintance with Dr. Crossen before but I have been acquainted with his book. As you know, it was our adopted textbook in the medical department of the University of Arkansas for several years.

There are some features of this paper that impressed me very much. This term that Dr. Crossen has used, endometriosis, is a new term to me. I suppose it is a term that I have always covered the ground with by the term fibrosis. Perhaps it is more specific or covers more ground than fibrosis. Is that right, doctor?

Dr. Crossen: The term pelvic endometriosis refers to a specific condition, namely, the development of endometrial-like tissue in the pelvis outside the uterus.

Dr. Saxon: You apply that term to that pathology of the endometrium alone. Is that right?

Dr. Crossen: Not to the endometrium, but to tissue that looks like it and occurs elsewhere in the pelvis.

DR. SAXON: I think we agree that the uterus is a sac, an organ for reproduction or carrying the fetus of conception and nourishment for the protection and development and final delivery of the offspring. We divide this tract of the female into about four segments, or parts or organs; the ovary being the battery or the part that stimulates all portions of the tract; the tubes being the place or organs where the ovum and the spermatozoon make their union; and then final delivery into the uterus of the fertilized product. The uterus, the muscular pear-shaped sac that receives, protects, nourishes and finally expells the developed product, a babe: the vagina is the organ of union or for copulation.

I think we all understand the ovary to be the organ in which all stimulus arises. I have always understood this process as such and always have been able to explain the processes in the entire tract on this basis. Developments in this organ from the beginning of menstruation of the female until menopause govern all changes physiologic or pathologic in the entire tract. And these pathological conditions usually are primary in the ovary itself; and when there is a disturbance in the battery, or ovary interfering with the normal function of that organ this creates pathologic conditions in the tube and in the uterus and the other parts of the tract, so any prolonged or excess stimulation in the ovary may and does produce pathology in the other parts of the genital tract.

As to this endometriosis, as the doctor terms it—and I call that fibrosis—I had an experience once with a patient, which I suppose would be a case of this type to a very marked degree. It had been opened and had been diagnosed as a malignancy. The uterus was about like seven months' pregnancy, had thick fibrosed walls, and had dismenorrhea and menorrhagic symptoms. These were the prominent symptoms in the case. Two doctors here, one a teacher of pathology in one of the colleges had opened this case. I saw the case eight months afterwards, and diagnosed fibrosis of uterus. I removed the uterus, did a panhysterectomy and the patient is living today, enjoying perfect health.

The main thing I want to bring before you is this that we have changes in the ovaries and in the peritoneal covering, grafian follicles and corpus luteum: that through reflex nerve influences or control produce changes pathologic in any or all of the genital tract or organs, and this we call fibrosis, or as the essayist calls it, endometriosis. And unless we remove the part of ovary affected it will lead to many symptoms and much interference of normal functions of any or all the organs or tissues of the genital tract. And unless understood and properly treated will give our patient constant discomfort and finally may lead to the development of malignancy.

But the point of the doctor's paper is to call our attention to this fibrosis gradually and constantly developing in the genital organs and adenexal from a stimulating effect of a pathologic state over a long time, especially of the graphian follicles and corpus luteum. And we call this deposit of fibrinous elements fibrosis, or if confined to endometrium-endometriosis.

I am glad the doctor has been thoughtful and considerate enough to write and read a paper on so common, yet so important, a condition which we all come in contact with so often. I heartily appreciate the doctor's being here and certainly am glad to have heard his paper.

DR. A. F. PIRNIQUE, Little Rock: I would like to ask Dr. Crossen a few questions. First, what is the post-operative mortality in these cases of endometriosis? Second, you made the statement that microscopically you found sometimes a myxomatous cyst and sometimes you found an adenomyoma. Of course, there may be a mixture of the two. Suppose we limit it to the cyst and myoma. In which case was the pain more exaggerated? And the most important question I would like to ask you is, as to the duration and the actual character of the pain as far as the menstrual cycle is concerned, especially where the pain is increasing and decreasing. Fourth, has it been established whether this menstrual blood within the cyst or in the adenoma does or does not coagulate.

DR. CROSSEN: I have not made a detailed analysis of my cases for determination of mortality percentage. Post-operative intestinal paralysis and peritonitis seem much more frequent than in chronic pelvic inflammation of like extent.

Endometrial cyst and adenomyoma were the two conditions mentioned. The relation of the pain to the menstrual cycle is an interesting and important feature. Being due to the extrusion of menstrual flood into a closed cavity it usually lasts all through the menstruation, instead of disappearing when the flow was well established as do most menstrual pains.

In regard to clotting of the blood in endometrical cysts, I do not recall any special investigation along that line though there may have been some. The characteristic change is partial disorganization leading to the formation of a chocolate-like material, rather than ordinary clotting.

THE TREATMENT OF ANGINAL HEART FAILURE*

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Failure of the heart falls into two main physiological classifications, Congestive Failure and Anginal Failure. The former type was discussed at the meeting last year (1). Anginal heart failure may be defined broadly as the type characterized principally by attacks of angina pectoris and may be due to a variety of etiological factors. It should be borne in mind that angina pectoris is a symptom due largely to anoxemia of the myocardium brought on by a diminished coronary blood flow.

ANATOMICAL FACTORS IN ANGINAL HEART DISEASE

1. *Sclerosis of the Coronary Arteries.* Atheromatous change of the walls of the coronary arteries is the most common lesion found in anginal heart disease. These plaques line the intimal walls of the vessels in their course and undergo calcareous degeneration leading to narrowing of the lumen. Later there may be tearing of the intima and ulceration of the inner surface of the vessels, predisposing to thrombus formation.

2. *Atheroma of the Aorta.* Atheromatous changes in the aorta may lead to formation of calcareous plaques which considerably diminish the lumen of the coronary ostia where they branch off from the aorta.

3. *Syphilitic Aortitis.* Simple syphilitic aortitis in all probability does not cause pain. This is why the condition may go unrecognized for so many years. When the process extends downward toward the aortic ring it may involve the ostia of the coronaries and the coronary flow may be impeded by puckering and oedema of the intima of the aorta in the more acute stages, or by scar tissue contractures in the later stages. In a surprisingly large number of individuals one or both of the coronary openings are ectopically placed, the openings being two or more centimeters above the ring. Such individuals suffering from syphilitic aortitis are particularly prone to involvement of the ostia. Complete closure and obliteration by scar tissue, particularly of the right coronary ostium, is by no means rare, is found, in fact, in a large proportion of cases of sudden death from that disease.

4. *Aortic Insufficiency.* Proper injection of the coronary circulation is to a large extent dependent on proper support of the diastolic pressure by closure of the aortic valves. Insufficiency of the aortic valves or incompetence of the aortic ring (as from widening due to aneurism of the ascending aorta) by non-support of pressure in the aorta immediately following systole leads to impaired filling of the coronary vessels and to diminished blood supply to the myocardium. Added to the hypertrophy and dilatation which are the direct results of the valve defect this factor of diminished myocardial blood supply plays an important part in the resulting cardiac failure.

In this type the etiological factor is important because of the bearing on treatment and prognosis. Rheumatic aortic insufficiency, as a rule, is less complete than syphilitic insufficiency, as a greater or less degree of stenosis of the valve is usually present in the rheumatic type and the infective agent is much less apt to be active and progressive in later years. Unless exceptionally good treatment is instituted in syphilitic aortic insufficiency less than two years elapse, on the average, between diagnosis and death.

5. *Other Causes. Rheumatic Aortitis and Mycotic Aneurisms* of the aorta and coronary vessels have been described. *Vegetations on the Aortic Valve* in bacterial endocarditis may obstruct coronary flow or emboli may break off and lodge in the coronaries. *Anaemia* and *thyrotoxicosis* may cause a relative insufficiency of coronary blood supply. Even of more rare occurrence are *tumors* or *traumatic accidents.*

No summary of causative factors is complete, however, which does not take into consideration nervous and mental influences. A great many individuals may possess the above pathological changes of structure; only a comparative few suffer from angina. It is a matter of record, for instance, that while the Chinese exhibit the same cardiovascular pathology as the Anglo-Saxon, yet the symptom of angina is unknown (2). Very much the same thing holds true for the American negro. One of the characteristics of western civilization is the "spasmogenic aptitude," (2) tenseness, worry, fear, high pressure work and play,

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superaccomplishments, and inability to relax. There is little doubt but that the stress and strain of modern life, particularly since the war, has contributed greatly to the increase in this type of heart disease.

Treatment

General Features. Naturally, treatment is dependent to some extent on the anatomical and etiological factors involved. This is particularly true if syphilis is suspected. No syphilitic individual suffering from anginal pain should be given indiscriminate specific treatment. The condition of his coronary circulation should first be determined as accurately as possible. Otherwise too intensive treatment may result in sudden death in one of two ways, first, by provoking the so-called "Herxheimer reaction" with oedema and swelling of the intima of the aorta resulting in a sudden diminution of blood flow through the coronary ostia with sudden death following shortly after an intravenous injection of salvarsan, or, second, by the too rapid formation of scar tissue with contractures closing a coronary ostium a few weeks after the inauguration of treatment, the "therapeutic paradox" of Wile and Stokes. These cases require a considerable period of preliminary treatment with mercury and iodides possibly followed later with bismuth, and if well tolerated followed still later by small doses of salvarsan at long intervals.

The rheumatic case should be protected as far as possible against infections of all kinds particularly of the respiratory tract, as there is good reason to believe that in patients who have once suffered from rheumatic fever an allergic state exists, and the patients are sensitized against the toxins of many strains of bacteria, particularly the various types of streptococci.

Removal of existing foci of infection frequently affords considerable relief particularly in those cases of angina due to coronary sclerosis or hypertension. Many cases of angina seem to be precipitated by such infections and the writer has seen attacks occur coincidently with acute genito-urinary infections, in acute exacerbations of gall-bladder disease and with peri-apical infection of the teeth. Clearing up the infection often relieves the cardiac condition temporarily, at least. There are two constitutional conditions which are particularly apt to be present with angina, diabetes and gout.

A general measure of treatment which frequently yields very happy results is *rest,* both physical and mental. The physical rest must be used with some discrimination. It is particularly beneficial in cases complicated with high blood pressure. It may consist of merely having the patient spend one day a week in bed or it may require a period of three or four weeks in bed. It is often to the patient's advantage to get away from his home and business to a different climate and to a different environment. Patients with angina are particularly susceptible to cold weather and it is to their advantage to come south during the winter months. Anginous patients often obtain the most happy results from a course of spa treatment.

Diet plays a rather important role in the control of attacks. The apparent connection between angina, coronary thrombosis and indigestion is well known. Luten (3) has drawn attention to the possibility of gastro-intestinal reflexes causing coronary vasoconstriction. The daily press bears witness only too often to the frequency in which prominent men, shortly following an after dinner speech, die of "acute indigestion" which we now know is an attack of coronary thrombosis. Drinking cold fluids may be sufficient to initiate an attack of angina. Dietary precautions are simple and consist principally in avoiding foods known to be hard to digest, and the avoidance of heavy meals. A low protein-high carbohydrate intake is advisable. Exertion after meals should be restricted, in fact it is better that the patient lie down for a time after eating. Coffee and tobacco should be greatly restricted.

Drug Therapy

For the acute attack, nitroglycerin 1-100 gr. is, of course, of paramount value. If necessary it may be repeated several times at ten minute intervals. The inhalation of the contents of a vial of *amyl nitrate* is fully as effective, but the odor is disagreeable to many patients. *Erythrol tetranitrate* because of its more prolonged action is of value where attacks recur at short intervals. In the same category comes also *sodium nitrate compound.* These latter two may cause headaches if used over considerable periods of time. A drug used effectively since first prescribed by Heberden is *alcohol.* It is just about as effective as nitroglycerin and is particularly valuable as a substitute if the latter causes

headache. For attacks of *angina decubita*, which usually occur in bed at night and which are apt to be prolonged and repeated, morphia 1-4 gr. may be necessary. Because of the objection to narcotics in general and because of its delayed effect morphine is undesirable for use in the ordinary attack.

In the care of the anginal patient over a longer period of time the use of the purine derivatives seem to improve coronary circulation. Particularly effective is *theophylline ethylene diamine* marketed under the trade names *euphyllin*, *metaphyllin*, *thephyldine*, and *theamine*. The dose averages 1½ to 3 grs. The writer has obtained encouraging results with *theocalcin*, grs. 7½ t. i. d. Double this dose may be given for short periods of time. It also comes combined with KI gr. 1½. Because of the combined sedatives effect *theobromine* 5 grs. with *luminal* ½ gr. in tablet form, called *theominal*, is rather effective.

Digitalis is not indicated unless congestive failure supervenes. Even then, because of its constrictive action on the coronaries, it is best to use it in conjunction with one of the purine drugs. Recently there has been introduced a tablet, *euphydigtal*, which combines 0.1G metaphyllin with 0.1G digitalis.

Prognosis

The subject of anginal heart failure cannot be dismissed without a word as to prognosis. The frequent association of angina and sudden death have caused the two terms to be regarded as synonymous in the minds of most patients and many physicians. Statistics from many sources indicate that the average life expectancy after the onset of angina is between five and six years (4). About 80 per cent eventually die of heart disease, but that means that 20 per cent live long enough to die of other causes. A common complication, occurring in about 50 per cent of anginal patients, is acute coronary thrombosis. This condition has been mentioned at length elsewhere (5). The sudden severe substernal or epigastric pain which is unrelieved by rest or nitrates; the shock, prostration, pallor, fall in blood pressure; the symptoms of acute myocardial insufficiency, dyspnoea, cyanosis, pulmonary oedema, enlargement of the liver, albuminuria, Cheyne-Stokes breathing, feeble heart sounds; the later symptoms associated with the myocardial infarction, fever, leucocytosis, pericardial friction rub, embolic phenomena; the digestive disturbances, nausea, vomiting, diarrhoea which may simulate an acute upper abdominal surgical emergency; the characteristic leaden-hued faces, the cold perspiration, the mental anguish—these form an unmistakable clinical entity. It constitutes a distinct downward step in the progress of the disease and calls for redoubled efforts on the part of the physician.

Conclusion

General and specific measures have been outlined for the treatment of anginal heart failure. Angina pectoris is a symptom warning of the approach of anginal failure. The major etiological factors have been mentioned, but in nearly 20 per cent of these patients there will be no demonstrable pathologic change in cardiac structure. Nervous and mental influences in angina, the "spasmogenic aptitude," the anginous state, must be recognized if we are to intelligently treat the anginal patient. While prognosis is usually directly proportional to cardiac pathology, reasonable drug therapy and sympathetic psychotherapy may prolong a patient's life for as long as twenty years after the initial attack.

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DISCUSSION

DR. CHAILLE JAMISON, New Orleans, La.: This is a perfectly wonderful paper and should certainly not pass without discussion by a group of doctors because the mortality among ourselves is perfectly tremendous. Now, we have gotten ourselves, our own profession, and the public as well in rather a panicky, psychic state. Hardly a day goes by that some one doesn't come in my office and wants to know, "Doctor, have I angina." Well, my difficulty is that I cannot diagnose angina unless the history is before me. The first thing is, what do we mean by angina. We simply mean, of course, chest pain; that's all. Now, we have to be very careful to distinguish between the ordinary cardiac angina, angina pectoris, and coronary thrombosis. We easily recognize major coronary thrombosis, the major rheumatic occlusion that comes on suddenly of one of the coroni, but we have a great deal of difficulty in demonstrating occlusion of the small vessels.

There seems to be a false idea about the electrocardiagram. The electrocardiagram cannot detect angina at all. All that the electrocardiagram can do is to show that the man has had an attack of coronary thrombosis and it is not at all certain proof. Just three weeks ago in New Orleans, the uncle of a prominent doctor died in 24 hours, of heart failure. The electrocardiagram had given the characteristic tracing of coronary thrombosis. At the autopsy no such thing was found. The corona was perfectly clear. He had pericarditis.

I would like to emphasize that the prognosis in the older group, once you have made the diagnosis, is very much better than in the younger. If we take the group of men of 40 to 45, who are having well marked anginas or symptoms of coronary thrombosis, be very guarded in your prognosis; but if, however, you deal with an older group, especially the arteriosclerotic group well advanced, the prognosis is better. Now, again, occasionally a man in the older group will have anginal attacks of angina pectoris all right and then have a major coronary thrombosis. These recover from the coronary thrombosis and never have any more pain. That is quite well known. It is also known that a man may have coronary thrombosis who has never had any cardiac signs before and then begin to develop ordinary angina.

Now, what Dr. Sullivan said about worry and work is of great importance. It is quite certain that many men have pains that cannot be distinguished from an ordinary major angina attack that, if relieved of strain and over work, recover.

There are two points I would like to emphasize. The first of these is, as the French have held for years—and I have convinced myself beyond the peradventure of a doubt—that tobacco angina is a very real thing, that it cannot be distinguished from ordinary idiopathic angina, that the stopping of smoking will stop the angina. I have seen that demonstrated time and time again; not only in the laity but I have seen that demonstrated in doctors. Now, one of the things that as experts we are up against all the time are people who are claiming disability. As I said to one of the companies the other day, "I don't know whether he has angina or not. It is almost impossible to prove that he has angina and not coronary thrombosis or angina pectoris."

One last thing to warn you is that of undertaking surgical procedures for angina pectoris, resection of the stellate ganglion, etc. Never consent to that in your patient unless you know, and it is often difficult to know, that the myocardium is in first-class condition. And, again, if there is any question of the attack having been coronary thrombosis, do not consent to having any surgical procedures resorted to. You simply condemn the patient and lay yourself open to considerable criticism.

Of course, we might talk for many hours on the subject. It is a fascinating subject. Dr. Sullivan has said so much and said it so well that really there isn't but very little left for me to say.

DR. SULLIVAN: Coming from New Orleans, what influence has coffee on angina?

DR. JAMISON: I am one of those who believe that the bromide derivatives are very close to the caffeine derivatives. I am one of those who believe that it is actually good for angina patients to take a reasonable amount of coffee. I let my patients drink coffee and allow them to drink a reasonable amount of whiskey. That doesn't mean to get stewed, but I mean a little whiskey and a little coffee. I believe that is a first-class thing for patients with angina. I have no reason to doubt that at all. We actually give a man with angina caffeine. We give him amytal, for instance, one of the best drugs I know of; a close cousin to caffeine. There is no question at all that the Creoles, and a lot of Anglo-Saxons, have gotten in the same habit, drink black coffee every two or three hours, a couple of cups. It is quite a common habit, and they get themselves into a terrific nervous state. I can't drink, for instance, more than one cup of coffee a day—I have had to stop the black coffee, but I don't get angina. I must say that I cannot condemn coffee. I must give coffee and alcohol a clean bill of health.

DR. S. A. COLLOM of Texarkana: What do you think of nitro-glycerine to relieve attacks of this pain?

DR. SULLIVAN, in closing: I wish to thank Dr. Jamison for his discussion. He has added greatly to the value of the paper. I might have known beforehand what his response to the question of coffee would be. However, I agree, especially as to coffee in the morning and afternoon. We are giving caffeine, especially in women, up to noon time. I restrict coffee in the evening.

The doctor's remarks about the prognosis being poorest in the younger individuals than the older individuals, is paradoxical but true. The answer is probably that in the older individual, an anastomoses of the coronary arteries increase so that if one branch, even a fairly large branch, becomes occluded, yet the circulation is quickly reestablished in the coronaries.

The question of worry is interesting. I recall very vividly Dr. Stewart Roberts speaking of the nervous and mental influences in angina a year ago, and he brought out the fact that angina doesn't occur in the full-blooded negro. He realized that it was closely bound up with the lack of worry in the negro. So he asked an old negro friend of his, and received this reply, "You know a negro can't stand up and worry. He has to sit down. When he sits down, he goes to sleep and when he wakes up he has forgotten what he was worrying about." (Laughter.)

I am glad Dr. Jamison mentioned the caution with which operative procedures should be recommended. That is my own opinion. We are adding distinctly to the immediate hazard of the operative risk, and also even with the best of care there are sometimes bad results.

I think that nitroglycerine for ordinary anginal attacks is the drug par excellence and can be repeated almost at liberty; that is, it can be used freely if the attack hasn't subsided; in five or ten minutes repeat it, and repeat it several times. However, if the pain persists for more than half an hour, then it is time to look for something else and you must begin to suspect thrombosis of one of the branches of the coronary.

RESUME OF GALL-BLADDER CASES IN SPARKS MEMORIAL AND ST. EDWARDS MERCY HOSPITAL SINCE 1925*

I. Fulton Jones, B. S., M. D. Fort Smith

Post-mortems have lighted the path of progress in the practice of medicine. The post-mortems may be at the autopsy table or they may be in statistics. It has been said that anything can be proved by statistics. Be that as it may, we think that it is well to stop and reflect on our past work. In this manner, we may see what we have accomplished and in what way we may improve our results.

We shall never be satisfied until our surgical mortality is nil. Although this is an impossible goal, it is one worth striving for, and by so striving we shall approach nearer to it.

Operative experiments on the gall-bladder of living animals were commenced in the seventeenth century; the object was to determine how bile passed from the gall-bladder to the intestine. This was in 1630 by Zambecarri. In 1667, Entmuller concluded from experiments on dogs that removal of the gall-bladder had no effect on bile passages.

The first deliberately planned operation for removal of stones was carried out by Jean-Louis Petit in 1743. He would not perform this operation, however, unless the gall-bladder was adherent to the abdominal wall. By puncturing the gall-bladder through the adhesions Petit was able to extract stones with the aid of a long forceps. Adhesions were formed by incision of the abdominal wall and the use in it of onions, horse radish, and cantharides.

No further advance was noted until 1859 when Thudichum proposed cholecystostomy in two stages; the first stage was to suture the gall-bladder to the abdominal wall and the second, puncturing it. Cholecystostomy was performed in one stage in 1867 by Bobbs and then by Marion Sims in 1878.

On June 15, 1882, Langenbuch performed the first cholecystectomy on a human being and the patient made a prompt recovery. The first cholecystectomy in America was performed by Ohage in 1887.

Lawson Tait characterized Langenbuch's operation of cholecystectomy as "intrinsically absurd." "The entire possibilities in the treatment of gall stones and distended gall-bladder are exhausted in Dr. Marion Sims' original paper * * * No further experimentation such as Wells and Langenbuch seem desirable." Today cholecystectomy is one of the commonest surgical procedures.

So we see from the foregoing that the earliest conception of gall-bladder diseases centered around the striking feature of it, stones. The contributions of Kehr, Mayo-Robson, Mayo's, Moynihan and Deaver, and others in this field of surgery, show the significance of early recognition of infection of the gall-bladder, and thus, the gradual substitution of cholecystectomy for cholecystostomy.

Today I shall review 148 cases of gall-bladder operations. These represent the work of 19 Surgeons. There were 37 males and 111 females; this is a ratio of 1:3. Most authors give us a ratio of 2:3.

The average age is 45.44 years. The average male is 47.9 and female 43.8 years. The oldest being a male of 79 and the youngest a female of 18.

In going over charts of this many men, you will find some are better kept than others and thus, some of these patients evidently had symptoms that were not listed in their histories. Those that I have listed are the ones that were mentioned. I found pain present in 134 cases. In only two cases did I find a note that the patient suffered no pain. The pain was of all types; colic; in R. U. Q., to back, to right shoulder blade, etc. The next commonest symptom was vomiting, which was present in 47 cases. It is interesting to note that vomiting was more frequent than nausea, which occurred in forty cases. Gas or flatulence was present in thirty-eight cases; almost as frequent as nausea and vomiting. Jaundice was present in twenty-three cases, and clay colored stools in twenty cases. We have all heard of the relationship of typhoid fever to gall stones. There was a history of typhoid in twenty cases, and in ten of these stones were found. Constipation and indigestion followed in seventeen.

On physical examination there was tenderness present in 102 cases and rigidity in 25. A mass was palpable in only twelve cases.

The types of operation were as follows: 131 were cholecystectomies, 17 cholecystostomies. There were 57 appendectomies done in

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conjunction with the above operations. Other operations, as gastro-enterostomy, salpingectomy, hysterectomy, uterine, suspension, etc., number 12.

One very interesting case was a congenital absence of the gall-bladder; but the common duct was greatly enlarged and obstructed by two stones. Here a choledochotomy was performed and a "T" tube inserted and the patient recovered.

The type of anesthesia used was ether 94; gas-ether 42; chloroform-ether 2; novacain-ether 1; chloroform 1; gas 2; novacain 6.

There was one case of primary hemorrhage where the clamps were left on for five days and then removed. There were two cases of secondary hemorrhage and both were re-operated upon and recovered. Stones were found in 35 cases. This shows the larger number of cases were operated for diseased gall-bladder.

The average number of post-operative hospital days were 17.7. The mortality rate was 10.81 per cent. This compares favorably with others, as the average rate for all cases run around 8-10 per cent. The rate without empyema cases is around 3-5 per cent.

The deaths listed were 16, and divide as follows: Peritonitis 5; paralytic ileus 3; shock 3; cardiac failure 3; acute nephritis 1; carcinoma of pancreas 1.

In conclusion, we believe that the above mortality rate can and will be reduced in the years that are to follow; because the surgeons will insist in 2-3 days pre-operative preparation. Also, that concurrent operations, except appendectomies, will not be performed so readily; for in these cases we find the mortality rate doubled.

Anesthesia will be more carefully considered, as ether alone, chloroform, ethyl chloride and avertin are contra-indicated because of their deleterious effect on the liver. Gas, with small amounts of ether, local infiltration and block, have given the best results.

Roentgenological study of these cases, somewhat neglected in the past, as we found it in only 31 instances in this series, will be instituted.

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Lewis: Practice of surgery, Vol. VII, 2, 1-3; 69; 169.

DISCUSSION

DR. J. A. FOLTZ, Fort Smith: I feel that very little can be added to the paper and the purpose of my discussion is not to add anything to the paper but I feel that it is too important a paper to let go without some discussion. Particularly I want to say that I know of the immense amount of work that it took to go through the records in two hospitals over a period of eight years, and with many of these histories miserably written and much of it going back to the days when none of us wrote quite as carefully and quite as fully, and if you think it isn't a job to dig out those statistics from that kind of records you just have another guess coming. It has been very instructive to the doctors at Fort Smith particularly because none of us had any idea just where we stood before. In some of these cases we can see quite readily why we haven't had more mortality. We can see, as Dr. Jones said, and I want to emphasize, that any time you do a cholecystectomy you have done a major surgical operation and, if you remove the gall-bladder and the appendix you have done just about as much as you have got any business to do and, even if there is justifying pathology there, it would be much better to close your incision and do that operation subsequently than to be sorry and make your explanations to the family as to why the patient died.

CHIROPRACTIC PROPOSALS REJECTED

In The Journal, November 5, attention was called to the fact that the voters in two States, Massachusetts and Arizona, would decide at the election whether or not they cared to grant the chiropractors the right to practice medicine, either wholly or with certain limitations. The State of Massachusetts was asked to establish a board permitting limited practice; in Arizona, where such practice was already permitted, it was hoped by the chiropractors that they might be able to sign death certificates, prescribe narcotic drugs and alcohol, and engage in other practices for which a chiropractic education would not qualify them. In both States the people rejected the requests of the chiropractors. The public is beginning to learn that there should be a minimum educational standard for all who propose to heal the sick. Of all the systems of healing now being offered to the American people, chiropractic is, no doubt, least qualified. The mental healers appeal openly to the power of suggestion. The osteopaths have something resembling a formal education, including some knowledge of anatomy and physiology, although the essential basis of their system may be unestablished. Chiropractic is founded on a fallacy, its practitioners are without fundamental education, and they do more harm than good.—*Jour. A. M. A.*, Nov. 19, 1932.

THE JOURNAL
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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

CHRISTMAS SEALS SAVE LIVES

By J. D. Riley, M. D.

With the coming of the twenty-sixth annual sale of the Tuberculosis Christmas Seals it seems only fair to call the attention of the medical profession to some of the tasks which are jointly the job of the profession and the Arkansas Tuberculosis Association. With all the advance in knowledge of the diagnosis of tuberculosis at the present time, only fifteen per cent of the cases in the sanatorium are early cases or childhood tuberculosis. Nothing could more clearly emphasize the dual responsibility of the only agencies so situated that they can alter this situation. The doctor cannot drag the patient in for an examination. There has always existed in the mind of the public on the one hand indifference to the danger from this subtle disease and on the other hand the dread of having fears confirmed.

In its report just issued, the Tuberculosis Association announces that twenty-three hundred persons have been handled in their itinerant clinics during the past year. Fourteen hundred eighty were given chest examinations, one hundred forty-six of whom were positive and two hundred seven were suspects. Most of the medical profession knows that all too frequently the suspect today has active tuberculosis tomorrow.

One thousand thirty-one children were given the tuberculosis test, 25.2 per cent being positive. These children should have an X-ray. A few have had and more will have, but as yet a thorough job of X-raying all infected children is not in sight.

These clinics have all been conducted under the auspices of the County Medical Society. All records have been referred to the family doctor and the patient instructed to report to him for information and treatment. Much chest pathology besides tuberculosis has been uncovered. Some patients examined a year ago have made their way back to health and usefulness under the supervision of the doctor, others have been sent to the sanatorium and have at least had a chance which would have been lacking but for these clinics.

The Tuberculosis Association can fill a special need for the medical society, for the whole spirit of the organization is inspired by the

desire to get the patient in his own doctor's hands. The Christmas Seal Sale not only supports this service but it gives opportunity to the doctor through his community influence to strengthen an able ally.

The waiting list of the sanatorium grows. Patients continue to die waiting to get in. Bankrupt counties are withdrawing their helpless sick. It is because some one must stop this long line that I have myself undertaken the vice-chairmanship of the Christmas Seal drive which is under the able chairmanship of Mr. George B. Pugh of Little Rock. Hence I am sending this call to the doctors of the State to assist the local tuberculosis chairmen in every way possible to raise the quota. With anxiety and malnutrition on every hand, with the doctors bearing an undue burden in their responsibility for the sick, here is one great piece of preventive work to which they can lend a hand.

Editorial Clipping

THE COMMITTEE ON THE COSTS OF MEDICAL CARE

This week the Committee on the Costs of Medical Care completed its five year study and made available a final report. An abstract and analysis of the report appears under Medical Economics in this issue of The Journal. The recommendations of the majority of the committee will not come as a surprise to the thousands of physicians who have followed closely the trend of the studies as indicated by the reports published from time to time since 1927. The director of the work, Harry H. Moore, Ph. D., published a book called "American Medicine and the People's Health," which revealed his personal bias for insurance schemes and, indeed, for governmental practice. So definite was the trend of the committee's studies in this direction that one must view the expenditure of almost a million dollars by the committee and its final report with mingled amusement and regret. A colored boy spent a dollar taking twenty rides on the merry-go-round. When he got off, his old mammy said: "Boy, you spent yo' money but where you been?"

Knowing the composition of the Committee on the Costs of Medical Care, physicians will not be surprised that a significant minority should have dissented from the majority report. True, the majority included seventeen men with the degree M. D., of whom seven are listed as in private practice and the others as public health officials or representatives of institutions or special interests. The minority report, however, is supported by Dr. Olin West, the secretary of the American Medical Association; George E. Follansbee, the chairman of the Judicial Council; M. L. Harris, a former president and for many years a member of the Judicial Council, and also Drs. A. C. Christie, Kirby S. Howlett, A. C. Morgan, Robert Wilson and N. B. Van Etten. Moreover, two representatives of American dentistry, Drs. Herbert E. Phillips and C. E. Rudolph, dissent in a separate minority report.

Briefly, the majority report recommends that medical practice be rendered largely by organized groups associated with hospitals, and it expresses the hope that these groups will maintain the personal relationship between patient and physician so essential to good medical care. The rendering of all medical care by groups or guilds or medical soviets has been one of the pet schemes of E. A. Filene, who probably was chiefly responsible for establishing the Committee on Costs of Medical Care and in developing funds for its promotion. Such practice has, moreover, on various occasions had the endorsement of representatives of some of eight foundations that contributed financial support. In contrast with this recommendation of the majority report, the minority bluntly recommends that "united attempts be made to restore the general practitioner to the central place in medical practice." This it does with good reason, for experience has shown that more than 80 per cent of all the ailments for which people seek medical aid can be treated most cheaply and most satisfactorily by a family physician with what he can carry in a handbag. All of the expensive studies and investigations carried out by the Committee on the Costs of Medical Care have not disproved this fact. In elaborating its recommendations, the majority report also endorsed industrial practice involving those schemes in which corporations care for employees and their families, as well as expansion of student health services at universities, so that these may serve faculty and townspeople as well as students. Most of the university services studied by the committee are in large cities

where such an expansion is manifestly impossible. The Journal has pointed out repeatedly that such practices will mean the destruction of private practice; that they represent exploitation of physicians for the gain of business; that they put medical schools into unfair competition with their own graduates, and that they are, in a word, "unethical." Knowing the composition of the Committee on the Costs of Medical Care, it is interesting to find the pet plans of many of its members so sweetly elaborated in the majority report.

Both the majority report and the chief minority report are concerned with public health services. The majority report recommends extension of all basic public health services to make them available to more and more people. The minority report views with alarm further invasion of governmental agencies into the practice of medicine. And what a curse such invasion has been! Who today fails to realize the menace inherent in the expansion of the Veterans Bureau? Even most radical health officials, moreover, are finding that their best policy will be to give medical practice back to the medical profession.

The minority report does recommend that the care of the indigent by the government be expanded with the ultimate object of relieving the medical profession of this burden. Already some county medical societies have worked out co-operative plans with their communities which seem to work practically in this direction. To what extent such plans may lead toward state medicine is, of course, problematic. Certainly physicians who are paid for the care of the indigent will be able to lessen fees for those able to pay only part of a usual medical fee.

The real question for consideration is the problem of providing funds for the care of the 10 to 20 per cent of serious medical and surgical conditions for which wage earners usually find themselves poorly, if at all, prepared. The majority report would place medical costs on a group payment basis through insurance, taxation or both but without abolishing practice on an individual fee basis for those who prefer it. Profiting by the experience of foreign countries, it is recommended that health insurance be distinctly separated from unemployment insurance or insurance against loss of wages. On the contrary, the minority report says flatly:

> It seems clear that recommendations for further trial and expansion of voluntary insurance schemes in the United States are entirely inconsistent with the committee's own findings. To recommend that our own country again experiment with discredited methods of voluntarily insurance is simply to ignore all that has been learned by costly experience in many other countries as well as our own.
>
> Voluntary insurance schemes are now in operation in many parts of the United States and are increasing in number and in size. In many places these schemes are being operated in accordance with the plan recommended by the majority of the committee, that is, by making contracts with organized groups of the medical profession. That they are giving rise to all the evils inherent in contract practice is well known. Wherever they are established there is solicitation of patients, destructive competition among professional groups, inferior medical service, loss of personal relationship of patient and physician, and demoralization of the profession. It is clear that all such schemes are contrary to sound public policy and that the shortest road to the commercialization of the practice of medicine is through the supposedly rosy path of insurance.

This need not be taken to mean that the minority report is opposed to any individual carrying insurance against the occurrence of a major illness or operation so that he might receive at such time funds sufficient to pay the hospital and the physician he might select. No doubt, insurance companies could sell such policies most reasonably if a sufficient number of persons could be induced to insure themselves and their families in this manner. Such a procedure is foresighted, American economical. It preserves personal relationship and the free choice of physician and hospital; moreover, it makes the patient responsible to the physician and places squarely on the physician the responsibility for the care of the patient.

Both the majority and minority reports recommend continued study of medical economic problems by every type of agency. Certainly the studies already published by the committee indicate the value of such studies and the necessity for having facts on which to base conclusions and recommendations. This would seem to be particularly true in relationship to such studies as are available of various industrial medical services and of corporate practice. The minority report is particularly resentful that the majority made recommendations on the basis of inadequate studies in this field. Thus it says:

> It is the belief of the minority group that the majority report has presented this question in a distorted manner. The evils of contract practice are widespread and pernicious. The studies pub-

lished by the committee show only the favorable aspects. They were selected because they were considered the most favorable examples of this type of practice in the United States. For each of these plans a score of the opposite kind can be found. The evils are inherent in the system although they may be minimized when a high grade personnel is found either among employees or medical group, or both.

Specifically, the recommendation of the minority group reads:

The minority recommends that the corporate practice of medicine, financed through intermediary agencies, be vigorously and persistently opposed as being economically wasteful, inimical to a continued and sustained quality of medical care, or unfair exploitation of the medical profession.

These two reports represent, therefore, the difference between incitement to revolution and a desire for gradual evolution based on analysis and study. The majority report urges reorganization of medical practice, the development of centers, insurance; if necessary taxation to provide funds; expansion of public health services. The minority is willing to test any plan that may be offered if it conforms to the medical conception of what is known to be good medical practice. Indeed, the minority recommends, "that methods be given careful trial which can rightly be fitted into our present institutions and agencies without interfering with fundamentals of medical practice." One seems to hear that famous medical aphorism that has come down through the centuries: "Prove all things; hold fast to that which is good."

In addition to the majority report and the first minority report, several others by smaller groups appear in the final report. The dental members, as previously mentioned, oppose the plan for centers as utopian. They favor some form of compulsory health insurance under professional control. Dr. Edgar Sydenstricker would not sign because he felt that the recommendations did not deal with the fundamental economic problem the committee was formed to consider. If by this he meant that the problems of the wage earner and of the poor include the provision of food, fuel, housing, clothing and transportation as well as medical service, he will find most of the world in agreement with him.

Early in the majority report it is emphasized that low incomes are largely responsible for the problems which the committee was created to investigate, but that subject is apparently never mentioned again in the majority report.

In September the Board of Trustees and the Judicial Council of the American Medical Association met with a group of physicians representing various portions of the country, to hear an analysis of economic problems. Last week the Board of Trustees met with the secretaries of state medical societies and with the editors of the state medical journals. At this meeting, Dr. William Allen Pusey, speaking for a committee appointed at the previous session, presented an analysis of the principles on which medicine must stand, its responsibilities to the public, and the return it has a right to expect from that public. In the twelve points under which he assembled his conclusions, several are especially significant in relation to the final report of the Committee on the Cost of Medical Care. They are briefly:

The good of society must be the sole aim of its public policies and the good of the patient the first consideration in the relations between physicians and patients.

Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically diagnosed and treated by a competent individual general practitioner.

Medicine's chief concern must be for the individual physician; the service rendered by individual physicians in the aggregate constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physicians who give it.

The medical profession asks a career of independence under conditions of free and dignified competition.

In its ideals of independence, medicine has a right to control its own affairs. Its history of capacity to do so and altruism justifies this claim.

The Journal, under the auspices of the Board of Trustees, representative of organized medicine in this country, urges physicians to familiarize themselves with the abstract of the final report of the Committee on the Costs of Medical Care which appears in this issue, if not with the complete report. It urges, after careful consideration, support of the minority report signed by the representatives of the American Medical Association in the committee. The alinement is clear—on the one side the forces representing the great foundations, public health officialdom, social theory—even socialism and communism—inciting to revolution; on the other side, the organized medical profession of this country urging an orderly evolution guided by controlled experimentation which will observe the principles that have been found through the centuries to be necessary to the sound practice of medicine. On the one side are

alined the forces that would practice one kind of medicine for the rich, another for the wage earner and the indigent; on the other side are the physicians who know that, from the point of view of the physician who studies bodies and minds, all are human beings. The physicians of this country must not be misled by utopian fantasies of a form of medical practice which would equalize all physicians by placing them in groups under one administration. The public will find to its cost, as it has elsewhere, that such schemes do not answer that hidden desire in each human breast for human kindliness, human forbearance and human understanding. It is better for the American people that most of their illnesses be treated by their own doctors rather than by industries, corporations or clinics. The American Medical Association, through its Board of Trustees, supports the minority report. No doubt the House of Delegates, at its session in Milwaukee next June, will urge every physician affiliated with the Association to do likewise.—*Jour. A. M. A.*, December 3, 1932.

Personal and News Items

Dr. Russell A. Honnessey of Memphis, Tenn., presented a paper on "Prostatic Resection" at the meeting of the Pulaski County Medical Society, November 28.

The sixth meeting of the Fort Smith Clinical Society met November 15. The society is sponsored by the Clinical Staffs of Saint Edwards Mercy, Sparks Memorial and Saint John's Hospitals.

Additional names to our 1932 roster published in the November Journal: T. E. Sanders, Howell Brewer, C. N. Pate and Z. N. Short of Hot Springs; Bert M. Mobbs, Honolulu, Hawaii; B. B. Bruce, Alma; R. L. Purnell, Marion.

Dr. Walter M. Matthews was appointed chief medical officer at the regional office of the United States Veterans' Administration of Little Rock. He succeeds Dr. R. B. Corney, who died recently. Dr. Matthews has been on the medical staff of the Little Rock office.

Dr. and Mrs. T. B. Blakely of Coal Hill celebrated their golden wedding anniversary at their home, November 19, 1932. They were married November 19, 1882, at McNairy, Tennessee, and moved to Arkansas soon after. Dr. Blakely has been a practicing physician for forty years and has practiced in Coal Hill thirty-six years. Dr. and Mrs. Blakely are the parents of Dr. R. M. Blakely of Little Rock.

ERRATA

Through error the name of Dr. N. B. Ellis of Wilson was omitted from the roster of the Society as published in the November Journal. Dr. Ellis has been a continuous member of the Mississippi County Society for a number of years. The address of Dr. H. C. Sims was given as Burdette, when it should have been Blytheville. The name of Dr. Alfred Hathcock, Jr., Fayetteville, was reported from Washington County when it should have been Dr. Preston L. Hathcock.

County Societies

ARKANSAS COUNTY

The Arkansas County Medical Society met in Stuttgart, Tuesday evening, November 22. A special feature of the meeting being the annual wild duck dinner.

Those present were S. S. Beaty and A. C. Watson, England; A. H. Hughes, C. C. Hankinson, J. W. John, T. J. Cunningham, J. F. Gill, Pine Bluff; Robert Caldwell, Paul Mahoney, R. J. Calcote, L. V. Parmley, M. C. John, Jr., D. A. Rhinehart, Homer Scott, S. B. Hinkle, M. E. McCaskill, M. J. Kilbury, C. W. Rasco, Jr., and F. F. Whitehead, Little Rock; T. G. Porter, Hazen; W. L. Boswell, Clarendon; D. C. Lee and son, Robert, and Grayson E. Tarkington, Hot Springs; W. T. Pride and J. S. Speed, Memphis; A. Knutson, Rock Island, Ill.; H. C. Riley, Bayou Meto; R. H. Whitehead, C. E. Park, C. W. Rasco, Homer Dickens, DeWitt; W. W. Lowe, F. A. Poe, Gillette; C. R. Strait, S. A. Drennen, M. C. John, E. B. Swindler, and J. E. Neighbors, Stuttgart.

Program:

"Some Causes for Long Labor-Analgesia in Obstetrics"—Dr. W. T. Pride, Memphis, Tennessee.

"The Early Treatment of Syphilis"—Dr. Grayson E. Tarkington, Hot Springs.

"Fractures of the Elbow," illustrated with slides—Dr. J. S. Speed, Memphis, Tennessee.

Book Reviews

Clinical Diagnosis By Laboratory Methods. By James Campbell Todd, Ph. B., M. D., late Professor of Clinical Pathology, University of Colorado, School of Medicine; and Arthur Hawley Sanford, A. M., M. D., Professor of Clinical Pathology, University of Minnesota (Mayo Foundation); Head of Section on Clinical Laboratories, Mayo Clinic. Seventh Edition, Thoroughly Revised. 765 pages with 347 illustrations, 29 in color. Published by W. B. Saunders Company, Philadelphia. Cloth, $6.00 net.

The new matter in this edition includes Corper and Uyei's method for culture of bacteria of tuberculosis, Fairhall's method for the determination of lead, Folin's 1929 method for precipitation of protein from blood and body fluids, his modified method for determination of uric acid in blood, and his revised copper solution for determination of blood sugar. Clark and Collip's method for determination of calcium is given in full. The technic for the Keith, Rowntree, and Geraghty method of determining blood volume and plasma volume is given in detail. The alcohol meal, and the gastric reaction to histamine are considered in the chapter on analysis of gastric content. The Gregersen test for occult blood is included. Although not fully established as a necessary clinical laboratory procedure, there is also included a discussion of the Aschcim-Zondek test for pregnancy, with a promising, simple modification. Attention is called to the importance of agglutination tests in the diagnosis of undulant fever and tularemia.

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Original Articles

CONVULSIVE SEIZURES: THEIR TREATMENT*

GRAYSON E. TARKINGTON, M. D., F. A. C. P.
Hot Springs National Park

Convulsive seizures may have as a contributary factor developmental or traumatic disturbances of the cerebrospinal fluid circulatory mechanism (Winkleman) (1), obstructive and congenital lesions of the lateral sinus (Swift) (1), and the jugular veins. In fact, any obstructive disturbance in the circulation as remote as the heart itself (Reisman and Fitz-Hugh) (1). Any interference with proper kidney elimination, such as seen in cardiorenal disease, eclamsia, uremia, and the acute toxic conditions and in disturbances of metabolism as in diabetes.

This paper will be confined to the consideration of those seizures which may be attributed to faulty water metabolism, whether as a result of cerebral trauma or those cases commonly classified as idiopathic epilepsy.

The fact that water metabolism may play a definite role in the production of epileptiform convulsions is not a new thought. Lennox and Cobb credit Hippocrates with this statement, "But whoever is acquainted with such a change in man (epilepsy) and can render a man humid and dry, hot and cold by regimen, could also cure this disease without minding purification, spells and all other illiberal practices of like kind."

The surgeon and pathologist have often called our attention to the "wet brain" and "cerebral edema" as a factor in convulsions associated with eclampsia, uremia, trauma and acute alcoholism.

Dandy has especially called attention to the abnormal collection of fluid over the frontoparietal areas of the brain characteristically found in the patient with chronic epilepsy.

Recently, this increased collection of supracortical fluid has been demonstrated in the epileptic patient by encephalography—the frequency in which this occurs has attracted much attention. Dandy, Carpenter and many others have pointed out this fact and the observations have been accepted as extremely common in the epileptic patient. "By means of an improved roentgenographic method devised by Pendergrass and the standardization of the procedure of encephalography presented and discussed in detail by Pancoast and Fay, it is now possible to visualize clearly the subarachnoid spinal fluid spaces and to compare the roentgenographic films in one case with those in another" (Fay).

It has been a constant finding in the well established case that there is an increase in the supracortical fluid. These observations have been verified by operative procedure as well as by neuropathologic observations of Winkleman who has proven that the factor at fault is the fluid-eliminating mechanism, chiefly the subarachnoid villi and the pachionian bodies.

Recent observations and experiments have indicated that excessive intake of fluid predisposes the experimental animal to convulsive seizures.

1. "Water intoxication": large quantities of fluid are given to a dog by a stomach tube; typical convulsions occur and the animal might die in status in four to five hours (1).

2. Weed noticed more rapid onset when hypotonic solutions were used by the vein (1).

3. Kubie showed similar findings with cerebral edema in hydration states, but found that these changes did not occur when the animal received free drainages of the cerebrospinal fluid while receiving the excessive fluid. Convulsive seizures were common in the undrained animal (1).

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

4. Elsberg and Pike, pointed out that in an animal that had received hypotonic solutions intravenously or when intracranial pressure had been increased, convulsive seizures could be produced by approximately one-half the dose of absinthe usually required in the normal animal. On the other hand if the animal were dehydrated, twice the usual convulsant dose was required (1).

5. Drabkin and Shilkert found large doses of insulin produce hypoglycemic states plus convulsions. If the animal were dehydrated no convulsion occurred. This work was carried further by Drabkin and Ravdin. They established definitely that the same animal could be used repeatedly to demonstrate this phenomenon; convulsive seizures appearing when the animal was given insulin and allowed free access to fluid, but no convulsions being produced after the animal is dehydrated (1).

With these observations and the clinical experience obtained in the control of acute intracranial pressure in cases of tumor of the brain and cerebral trauma, a method of prolonged dehydration was devised by Fay for the patient with chronic epilepsy.

It is essential that the patient be hospitalized as the fluid intake and output of the patient must be determined. After this, routine, physical, neurological and laboratory examinations are made. The encephalogram is then made. Dehydration should begin with the making of the encephalogram as then the cerebrospinal fluid system has been drained dry. The amount of fluid removed varies; depending on the amount of brain atrophy present. The largest amount to be removed by the author has been 210 c. c. Foods and liquids are then restricted following the encephalogram. In the case with the frequent and prolonged grand mal type, the fluid may be restricted to ten ounces in the twenty-four hour period. In the less frequent and without stuporous state, twelve ounces may be allowed and in the less severe types, as many as sixteen to twenty ounces may be permitted in the twenty-four hour period.

The food should consist of dry toast, baked potato, dry cereal, vegetables drained of all juices. Sauces, juicy fruits and gravies should be strictly avoided. Starches are permitted to avoid acidosis. However, candy and ice cream are not permitted on account of the high water requirement. It is not necessary to have a salt-free diet, although salt should never be added to food at the table.

In the majority of cases, the low fluid level will be established in the first ten days of dehydration. During the first ten days to two weeks, the thirst is very intense. This may be relieved by the use of chewing gum, orange peel, white rock and seltzer water instead of plain water, lemon juice and grapefruit juice. However, these liquids must be included in the total amount of the fluid allotment for the twenty-four hour period.

One and one-half ounces of magnesium sulphate crystals should be given every other morning.

The spinal canal should be drained at regular and frequent intervals. This, of course, depends upon the requirements of the case. The canal should not be drained dry at these therapeutic drainages as there is a tendency to produce nausea and vomiting when this is done.

Loss of weight is phenomenal the first two weeks at which time a level is reached and maintained provided the diet is held within normal limit. There is a tendency for the patient to gormandize during the early period of dehydration and naturally there is more or less craving for certain food throughout the regime. Therefore, with an uncooperative patient, one cannot expect very good results. We find the mentally defective practically a hopeless subject for dehydration.

The urine in these dehydration cases remains clear. That is, there are no casts or albumin present in spite of the limited fluids.

There is a marked lessening of irritability and an improvement in memory and mental alertness. Where the seizures are not entirely relieved, the character may be changed from a grand mal to a petit mal. Unfortunately, we are unable to relieve the petit mal with dehydration when they have replaced the grand mal type.

Where the patient has been taking luminal over a length of time, care must be taken in withdrawing the drug; abrupt discontinuance may produce status. This has occurred on two occasions in the author's series.

In the experience of Doctor Fay, cerebral hydration states have been constantly found whenever major convulsive seizures have been present. Some form of fluid imbalance or disturbance in water metabolism could be

traced in almost every instance. Frequently the cause lay outside the cranial cavity.

When one considers that a normal human being can develop a generalized convulsion if the fluid intake is sufficiently forced and the kidneys are "shut down" (eclampsia), following trauma (cerebral edema), or simply by forcing large quantities of fluid, this within itself cannot but command attention. When acute or chronic major seizures can be controlled at will over a period of two and one-half years by limitation of fluid intake in the chronic forms of convulsive state, it seems justifiable to assume that this daily fluid variably plays the predisposing part in the cycle of events (1).

Case Report No. 1: W. R., white male, age 29, reported to me on July 1, 1931, with a history of convulsive seizures. Patient is the oldest of six children, none of whom have ever had seizures. Two brothers died in infancy. Mother states normal birth and that there was no dystocia. At the age of two years, patient received head injury by a horse kicking him over the left frontal region.

Onset of his seizures was at the age of sixteen years. The average frequency was two and one-half weeks. The longest period without seizures was two and one-half years; the shortest, one day. He has an aura consisting of loss of speech one to three minutes before onset of seizure. The convulsion is generalized and is accompanied by tongue biting. There is complete loss of consciousness. Previous treatment received by the patient consisted of bromides and one and one-half grain luminal at bedtime. This had been continuously used for the past several years. He also received some patent medicines.

Physical examination was found to be essentially negative with the exception of diminished knee jerks and irregular left pupil and absence of abdominal reflexes. Patient has abnormally large appetite. Bowels require cathartic. He does not use alcohol in any form but drinks large quantities of water and many coca colas. He stated that the taking of large quantities of fluid of any kind subjects him to seizures.

July 2, 1931: Encephalogram was made at which time 200 c. c. of fluid was withdrawn and replaced with 200 c. c. of air. After the taking of the pictures, the patient was removed to the hospital. He was placed on a dry diet which allowed him sixteen ounces of fluid in the twenty-four hour period.

July 18, 1931: The father reported that the patient had had twenty-six convulsions during the past thirty-six hours. This, I attributed to the sudden withdrawal of the luminal. One and one-half grain luminal was administered which relieved the status. Since this flare-up the patient has had but three convulsions—one on the day following Thanksgiving; one the day after Christmas while the third occurred during the interval.

The loss of weight was very rapid at the beginning of the dehydration regime. On the day of examination, patient weighed 154 pounds but this dropped down to 138 pounds. On his last visit to my office, March 2, 1932, his weight was 162 1-2 pounds and he reported feeling fine.

This patient has been drained at intervals of about every six weeks, an average of about 50 c. c. of fluid being removed each time. These drainages will of course, be kept up indefinitely.

Case Report No. 2: This second case that I will report is that of a white female, 32 years of age who in addition to being a developmental defective, also gives a history of two head injuries. The first one occurred at the age of five years when she fell from a buggy; the second she received at the age of eleven when she was hit in the head with a swing. Her first convulsion occurred in 1917 at the age of 19, following a severe attack of typhoid fever. The next seizure was eleven years later when they began occurring every week. The interesting point about this case is the fact that the patient had been taking three grains of luminal for three years while under dehydration she does not require any sedatives and has been free from any seizures with the following exception: Eleven months after instituting dehydration, she developed an acute appendix and during hospitalization for surgical procedure, dehydration regime was discontinued. Twelve days after admission to the hospital, the patient suddenly developed convulsive equivalent in the form of jerking of the upper extremities with some slight mental confusion. 50 c. c. of a 25 per cent glucose solution was administered intravenously, 3 grains luminal by mouth and a saturated solution of magnesium sulphate enema relieved the condition and apparently avoided a generalized clonic convulsion which

had in the past followed the preceding symptoms. This is accounted for by the enemata and freedom of fluids allowed the patient. She was immediately dehydrated and has continued free from convulsions.

REFERENCES

1. Fay, Temple; Archives of Neurology and Psychiatry, May, 1930.

NOTE: Free use in preparing this paper has been made of the writings of Doctor Temple Fay, Philadelphia.

SPINAL ANESTHESIA*

C. B. Capel, M. D., Pine Bluff

The widespread use of spinal anesthesia is due largely to the increase in knowledge of its underlying principles, the laws governing diffusion in the spinal fluid, the effect of posture, and the stabilization of blood pressure. The practicability and safety of the procedure have been largely attributed to the general adoption of novocain as the anesthetic agent. The preliminary injection of ephedrian has proven a valuable means for controlling the blood pressure. Consequently the indications for spinal anesthesia have been greatly extended with results that have been gratifying to the surgeon, the anesthetist, and the patient as well.

Physiology of Spinal Anesthesia

In spinal anesthesia a solution of novocain crystal dissolved in the spinal fluid is introduced in the spinal canal. By diffusing through the spinal fluid, the novocain comes in contact with the roots of the spinal nerves, and is immediately absorbed by them in the canal and for about two centimeters beyond their exit, where the dura and arachnoid unite to form the neurilemma of the spinal nerve. Anesthesia results from block of the posterior nerve roots. The number of these involved depends upon the extent of diffusion of the anesthetic. The method used to control diffusion, and hence the height of anesthesia are discussed later.

Anesthesia of the posterior or sensory roots is most marked because their position favors ready contact with the anesthetic fluid and, as is well known, sensory fibers are more susceptable to novocain than motor fibers. Anesthesia first appears in the perineal region, then the legs, the lower abdomen, and finally the costal margin. Thus, while it may be maintained in the perineal region from two to two and one-half hours in the upper abdomen, it will not be satisfactory for more than one hour to one hour and a half. Its duration can be prolonged, if necessary, by employing larger doses of the anesthetic agent.

Effects Upon Blood Pressure

Besides its action upon the sensory fibers, novocain affects, though to a less degree, the white rami communicantes, which form the connection between the spinal and sympathetic system. In its action upon these nerves is to be found the explanation of the vascular in stability, formerly the bug bear of spinal anesthesia. The sympathetic nerve fibers, which emerge from the anterior thorasic and lumbar roots, course through the white rami communicantes and join the ganglia of the thoracic and abdominal sympathetic chain, the vasoconstrictor stimuli, a rise in the medullary and spinal centers, and are carried to the nerves which supply the blood vessels by way of the white rami and the sympathetic ganglia. Failure of these stimuli to reach their destination, which may occur during spinal anesthesia because of the anesthesia effect of novocain on the white rami, results in dilation of the blood vessels. This decrease in vascular tone, causes a fall in blood pressure. Other minor disturbances may contribute to this, but the blocking of the vasomotor nerves is the most important factor.

Prevention of Fall in Blood Pressure

Knowledge concerning the cause of vascular instability has contributed greatly to the safety of spinal anesthesia. It has been found that variations in blood pressure with the related nausea, vomiting, faintness, and other discomforts can be satisfactorily controlled by the prophylactic administration of ephedrian. This drug produces a rise of blood pressure by direct action on the ends of the vasoconstrictor fibers or perhaps upon the muscular layer of the blood vessel itself. If ephedrian has been administered about ten minutes before the anesthetic, it has already exerted its peripheral action and vasodilitation does not follow, in spite of the later blocking of the vasoconstrictor fibers in the white rami. The action of ephedrian outlasts that of novocain and tends to keep the vessels in normal tone until the effect of the anesthetic has worn off. The higher the anes-

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

thetic extends, the greater the number of vasoconstrictor nerves that are involved. Hence, the amount of ephedrian necessary to stabilize vascular pressure will vary according to the anticipating level of anesthesia. For practical purposes it can be said that with the higher levels of anesthesia, which include all, or almost all, the sympathetic chain, and in the presence of hypotension or of preoperating shock, a dose of fifty to one hundred mg. of ephedrian will usually control the blood pressure. In severe preoperative shock or hemorrhage, one hundred fifty mg. of ephedrian has been employed. With anesthesia of the lower levels, in which less than half of the sympathetics are affected, ordinarily fifty mg. is sufficient. In cases of myocarditis or marked hypertension the amount of ephedrian should be reduced to one-half of that ordinarily indicated.

Advantages and Indications

1. In the large literature that has accumulated on spinal anesthesia, a number of distinct advantages have been repeatedly pointed out. The toxic effects of anesthesia are greatly reduced in metabolic diseases, blood disorder, and infections.

2. Shock is almost entirely eliminated, for conductivity of impulses from the periphery to the brain is temporarily abolished.

3. Relaxation of the abdominal muscles is more complete than with any other form of anesthesia. The intestine becomes contracted, peristalsis is arrested, and the necessity for forcibly packing away distended intestines is thus avoided. For these reasons the surgeon can operate more quickly, with greater ease, and with less trauma, in cases of ruptured viscera, such as a gangrenous appendix or perforated peptic ulcer. The surgical procedure may be carried out with minimum dissemination of infected materal.

4. Major surgery becomes possible in many cases where inhalation anesthesia is contraindicated.

5. Electrical apparatus may be used without the danger of explosion.

6. Postoperative discomfort is lessened. There is little or no nausea and vomiting, as well as gas pains or distention.

7. Patients are able to take liquids and carbohydrates before, during, and after the operation. Dehydration and acidosis are thus avoided. There is less need for catheterization and less risk of cystitis and pyelitis.

8. Complications are reduced as consciousness is preserved. There is no danger of aspirating mucus or irritating substances into the trachea and bronchi. Postoperative hernia and ileus are less frequent. Mortality is lower.

9. From the patients standpoint spinal anesthesia is usually more pleasant than inhalation anesthesia as the inductive period is smooth and short and without any feeling of suffocation or disagreeable odor. Usually no consideration is given to secondary conditions which may arise as a result of a general anesthesia and which in turn may be the deciding factors against a patient's recovery. No matter how well a general anesthesia is administered, its effects may later be the deciding factor, especially in a patient who is already having a difficult time to recover from an injury or an illness. In such cases the least little unfavorable complication will sometimes be the deciding factor in preventing a patient's recovery. A patient dying from pneumonia three days after a general anesthesia is just as dead as one who succumbs to spinal anesthesia on the table.

Statistics

Jonnesco reports 6,200 cases of spinal anesthesia with no deaths.

Rostock reports 6,000 cases with no deaths.

McCormacks reports 5,000 cases with no deaths.

Gosset and Mounods report 2,000 cases with no deaths.

Case reports 1,100 cases with no deaths.

Brainbridge reports 1,065 cases with no deaths.

Labot reports 3,500 cases with no deaths.

Koster, in 1,010 operations done under spinal anesthesia in the Author's Clinic from January 27th to September 23rd, 1929, there were three cases of pneumonia, eleven of bronchitis, four of dry pleurisy, reports that there were no fatalities. Compared with a series of cases operated under inhalation anesthesia, reported by Cutler and Hunt, in which fifty-five pulmonary complications with eleven deaths occurred in 1,562 operations.

Preparation of the Patient

On the evening before the operation the patient is given an S. S. enema, and preparation of the patient for the operation contemplated. The next morning, thirty minutes before going to the operating room, the pa-

tient is given a hypodermic of pantopon gr. 1-3 and 1-60 gr. strychnine. The pantopon does not seem to alter the effects of novocain as does morphine. This enables the anesthetic to last longer. Ten minutes before making the spinal puncture, we give a deep intramuscular injection of ephedrian sulphate, lay the patient on the right side, scrub the back with benzine and then with ether and tr. iodine. Make the puncture at the desired location, and allow as much as three cc. of spinal fluid to flow into the ampoule of novocain. When dissolved, reinject into the spinal canal. Turn patient on back and Trendelenge immediately, and the patient is ready for the operation.

After the operation is over give one-fourth gr. morphine hypodermically. This counteracts the effects of the novocain immediately. Keep the patient in the Trendelenburg position while removing from operating room, and for six hours afterwards.

Abstract

UROLOGIC BACKACHE

In a review of 3,600 case histories, Harold L. Morris, Leo J. Langlois and James F. Brunton, Detroit (Journal A. M. A., December 31, 1932), found backache of urologic origin in 31 per cent. There were 620 female and 507 male patients. They present a qualifying classification as an aid in the differential diagnosis of backache. The majority of patients with chronic renal lesions refer to their disability as backache and not back pain. The backache of pyelitis is a constant dull, deep-seated ache, diffusely felt in the lumbodorsal region. The backache of ptosis is similar to that of chronic pyelitis, but in addition is of a dragging character and is relieved by rest. The disability in renal calculus disease is not a true backache, but a persistent, paroxysmal pain in the costovertebral region which is intensified, with radiation, as the calculus passes through the ureter. Prostatic backache is a dull aching sacral disability, which is most severe on arising, and is occasionally referred along the course of the sciatic nerve. The urologist should be familiar with the means of differentiating backache caused by urologic conditions from backache occurring in gynecologic and orthopedic diseases. Examination of the back is often neglected, or is frequently performed in such a cursory manner as to be without value. It is not a difficult task to determine if there is rigidity or limitation of movement of the back muscles, or tenderness over the sacro-iliac or sacrococcygeal joints, with pain on passive motion. First percussion over the entire back, the spinal column and the iliac crests will often achieve differential results. A large number of backaches in women are due to fatigue of the back muscles and a protective tilting of the lumbosacral articulation. Postural defects must be considered. In gynecopathic conditions careful vaginal examination should be be performed to eliminate the presence of conditions such as retroversion, prolapse and pelvic inflammatory disease. If the history is carefully taken it will be noted that the backache is often worse during the menstrual cycle. Urologists should become adept in performing vaginal examinations to rule out pelvic changes, and a discovery of pelvic inflammatory disease may be an impetus to further investigation and discovery that the backache is urologic and secondary to the pelvic disease. The backache accompanying prostatovesicular infection is usually diagnostic when following the classic description. Spondylolisthesis occurs more commonly among men who have been active in pursuits involving heavy labor, and between the ages of 20 and 60 years. This condition is more common than was previously thought. This is a feature that must be ruled out since it involves the lumbosacral articulation. There is, however, always a history of trauma in spondylolisthesis.

County Societies

(Continued on page 175)

MISSISSIPPI COUNTY

(Reported by F. D. Smith, Sec.)

At the regular December meeting of the Mississippi County Medical Society held at the Blytheville Hospital, the following officers were elected for 1933:

President, A. M. Washburn, Blytheville; vice-president, J. A. Luckett, Dell; secretary-treasurer, F. D. Smith, Blytheville (re-elected).

Present: Sheddan, Hudson, Howton, Tidwell, Luckett, Saliba, Sims, Washburn, Husband and Smith.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

HAVE YOU PAID YOUR 1933 MEMBERSHIP DUES IN THE ARKANSAS MEDICAL SOCIETY?

If not, you should do so immediately to the secretary of your county medical society.

Your continuous good standing in medical organization is based on the payment of your membership dues. Moreover, payment of your 1933 dues now will insure your receiving The Journal; entitles you to registration at and participation in the annual meeting to be held in Hot Springs; eligible for attendance at the Councilor District and Tri-County meetings, also qualifies your wife for membership in the Auxiliary.

Don't neglect this important matter. You need the numerous benefits which membership in organized medicine affords. Medical organization needs your active interest and cooperation.

Never before has our combined force been so imperative. For the past few years, we have had a surplus of Cults, but now we have another group that will be just as detrimental. This new crowd is working under the guise of "Medical Economists"—who favor Contract or Group practice by private clinics as well as free medical service rendered under government supervision. However, "organized medicine will supply a workable plan, safeguarding the best traditions of the profession and the fundamental practices and responsibilities of individualism in the care of the sick."

This cannot be done with an empty pocketbook.

Personal and News Items

Dr. D. W. Goldstein of Fort Smith visited in Greenville, Mississippi, and Little Rock last month.

At the meeting of the State Board of Health, held January 6, 1933, Dr. E. D. McKnight of Brinkley was elected president, and Dr. J. G. Gladden of Western Grove, vice-president.

Dr. H. King Wade has been installed as new president of the Hot Springs Kiwanis Club, Dr. Geo. B. Fletcher, vice-president, and Dr. L. G. Martin, district trustee.

Dr. Robert Caldwell of Little Rock, chairman of the honorary board in charge of operation of the State Hospital for Nervous Diseases, was reappointed, December 23, by Governor Parnell for a term of six years.

Dr. Robert Wilson of Mountain Home, aged 80, died at the home of his daughter Mrs. Joe Garbac in Cotter. He had been actively engaged in the practice of his profession for more than fifty years.

We regret to announce the death, December 27, 1932, of Dr. Isaac J. Jones, Little Rock. Dr. Jones held a professorship in the University of Arkansas, School of Medicine, for ten years prior to his retirement in 1930.

Our President, Dr. Will H. Mock of Prairie Grove, spent the month of December in Southern California (principally in Hollywood). This is no place for a bachelor to spend a vacation—so thinks the editor.

The Jefferson County Medical Society elected the following officers for 1933: President, T. J. Cunningham, Pine Bluff; vice-president, W. M. Chavis, Pine Bluff; secretary-treasurer, Grace Tankersley, Pine Bluff; delegate, J. M. Lemons, Pine Bluff, and alternate, M. A. Shelton, Wabbaseka.

Officers elected for the Cross County Medical Society for 1933 are: President, Thomas Wilson, Wynne; vice-president, L. H. Lipsey, Wynne; secretary--treasurer, Ruffin Longest, Wynne; delegate, Thomas Wilson, Wynne, and alternate, Austin Flint Barr, Cherry Valley.

Officers elected for Searcy County Medical Society for 1933 are: President, J. O. Cotton, Leslie; vice-president, J. O. Leslie, Marshall; secretary-treasurer, Sam G. Daniel, Marshall; delegate, E. W. Wood, Marshall, and alternate, J. A. Henley, Marshall.

The Sevier County Medical Society elected the following officers for 1933:

President, C. E. Kitchens, DeQueen; vice-president, J. C. Graves, Lockesburg; secretary, Isaac C. Jones, DeQueen; delegate, J. C. Graves, Lockesburg; alternate, A. J. Clingan, DeQueen.

Dr. and Mrs. J. S. Westerfield celebrated their golden wedding anniversary, January 31, 1932. They were married in Greenbrier, December 31, 1882. Dr. Westerfield came from Barbourville, Ky., to Faulkner County, fifty-six years ago. Mrs. Westerfield is a native of Greenbrier, Ark. They have resided in Conway for thirty-eight years.

At the meeting of the Washington County Medical Society, held January 3, 1933, the following officers were elected: President, F. R. Morrow, Fayetteville; Vice-President, Preston L. Hathcock, Fayetteville, and Secretary-Treasurer, Fount Richardson, Fayetteville.

Drs. F. T. H'Doubler and E. G. Wakefield both of Springfield, Mo., gave a joint paper on "Pre and Post-Operative Care of Pyloric Obstruction." The paper was well received and the speakers responded to many questions asked them.

The December meeting of the Saline County Medical Society was held in Benton at which time the following officers were elected: President, Curtis W. Jones, Benton; vice-president, W. W. Ward, Alexander; secretary-treasurer, Thos. C. Watson, Benton; delegate to annual State meeting, M. M. Blakely, Benton; alternate, T. E. Buffington, Benton. Dr. O. C. Wenger of Hot Springs was to have been the guest speaker, but he was unable to be present. He will appear on the program later. Dr. Wm. Feldman of Traskwood was a visitor and applied for membership in the society.

At the meeting of the Pulaski County Medical Society held December 12, the following officers were elected for the ensuing year: President, S. C. Fulmer; vice-president, Paul Mahoney; secretary, E. H. White (re-elected); treasurer, Wm. R. Bathurst (re-elected). Committee appointments:

Public Relations—Dr. D. A. Rhinehart, chairman; Dr. C. W. Garrison, Dr. M. J. Kilbury; Dr. H. W. Hundling and Dr. L. V. Parmley.

Scientific Program — Dr. Ernest Harl White, chairman; Dr. O. C. Melson and Dr. J. S. Levy.

Public Health and Legislation—Dr. M. E. McCaskill, chairman; Dr. Glenn M. Holmes and Dr. Joe F. Shuffield.

Social Entertainment—Dr. Byron A. Bennett, chairman; Dr. K. W. Cosgrove and Dr. Bryce Cummins.

Credentials—Dr. H. A. Higgins, chairman; Dr. S. B. Hinkle and Dr. G. W. Reagan.

Printing, Finance and Claims—Dr. B. A. Rhinehart, chairman; Dr. D. T. Hyatt and Dr. Paul M. Fulmer.

Board of Censors—Dr. Pat Murphey, chairman; Dr. J. H. Sanderlin and Dr. H. Fay H. Jones.

From February 12 to 25, 1933, there will be a training period for Medical Department Reserve Officers of the Army and Navy, made possible at the University of Washington Medical School, St. Louis, Missouri, by the courtesy and enthusiasm of the faculty of this school in cooperation with the Medical Departments of the Army and Navy.

While this is classed as an "inactive duty period" and is without pay or allowances to the participants, the time spent is recognized for the same credits as though it were an "active duty" period. The exceptional clinical advantages of this great medical center, combined with the advanced military and naval training, make possible a very profitable two weeks. The training is open to all Medical Department officers of the Army and Navy reserves, or the National Guard.

The program of the clinics will be under the direct supervision of the faculty of the Washington University. The military instruction, which for the first time includes instruction with reference to the medical service of the Navy, will be under the direct supervision of Colonel George A. Skinner, Medical Corps, United States Army, Corps Area Surgeon, assisted by Lieutenant Commander Reuben H. Hunt, Medical Corps, United States Navy.

Applications for attendance should be forwarded to the Surgeon, Seventh Corps Area, Omaha, Nebraska.

At the meeting of the State Board of Health, held January 6, 1933, the following County Health officers were appointed:

First District

Greene—Dr. F. M. Scott, Paragould.
Lee—Dr. O. L. Williamson, Marianna.
Phillips—Dr. W. B. Bruce, Helena.
St. Francis—Dr. N. C. McCown, Forrest City.
Woodruff—Dr. J. F. Hays, McCrory.
Craighead—Dr. W. C. Overstreet, Jonesboro.

Second District

Lawrence—Dr. W. W. Hatcher, Imboden.
Prairie—Dr. J. H. Gipson, Des Arc.
Randolph—Dr. J. W. Ryburn, Manson.
Stone—Dr. J. E. Luther, Mountain View.
Monroe—Dr. C. A. Henry, Clarendon.
Jackson—Dr. M. B. Owens, Newport.

Third District

Benton—Dr. R. M. Atkinson, Bentonville.
Boone—Dr. D. E. Evans, Harrison.
Marion—Dr. L. M. Weast, Yellville.
Washington—Dr. J. W. Walker, Fayetteville.
Newton—Dr. J. O. McFerrin, Jasper.
Carroll—Dr. J. H. Bohannan, Berryville.
Baxter—Dr. J. T. Tipton, Mountain Home.

Fourth District

Scott—Dr. L. D. Duncan, Waldron.
Sevier—Dr. A. J. Clingan, DeQueen.
Little River—Dr. J. W. Ringgold, Ashdown.
Logan—Dr. I. H. Jewell, Paris.

Fifth District

Conway—Dr. W. H. Bruce, Morrilton.
Faulkner—Dr. H. C. Brooke, Conway.
Johnson—Dr. M. I. Barger, Lamar.
Pope—Dr. A. B. Tate, Russellville.
Pulaski—Dr. J. A. Summers, Little Rock.
Yell—Dr. T. J. Pool, Ola.

Sixth District

Cleveland—Dr. A. J. Hamilton, Rison.
Garland—Dr. J. F. Merritt, Hot Springs.
Lonoke—Dr. F. A. Corn, Jr., Lonoke.
Drew—Dr. Stanley M. Gates, Monticello.
Saline—Dr. T. C. Watson, Benton.

SEVENTH DISTRICT

Ashley—Dr. A. M. Gibbs, Hamburg.

Calhoun—Dr. T. E. Rhine, Thornton.

Chicot—Dr. W. D. Easterling, Lake Village.

Lafayette—Dr. R. L. Armstrong, Lewisville.

Nevada—Dr. J. B. Hesterly, Prescott.

Ouachita—Dr. R. C. Kennerly, Camden.

Union—Dr. F. O. Mahony, El Dorado.

Auxiliary Notes

The Woman's Auxiliary to the Bowie-Miller County Medical Society met December 9, 1932, at the home of Mrs. L. J. Kosminsky, with Mrs. E. L. Beck, Mrs. N. B. Daniels, Mrs. R. R. Robins and Mrs. Joe Tyson cohostesses.

The meeting opened with a tribute to Mrs. J. N. White, who died November 30, 1932.

Committee reports were as follows: Fourteen copies of Hygeia are sent to principals of schools in Texarkana monthly. Each member filled a Christmas stocking for a needy family. Contribution to milk fund in schools of Texarkana, Arkansas, and Texas, was renewed.

Following the business meeting, Miss Nancy Pettus presented an interesting and informative paper on "White House Conference of Today." Mr. Robert E. Maxwell, secretary, Bowie County Council for Child Health and Protection, gave a talk on projects undertaken by various organizations to assist the County Council in its program.

RESOLUTION

Whereas, The problem of medical costs is becoming a great factor in human economy and whereas, basic changes in the system of providing medical care for the people of the United States was recommended at the national conference on the costs of medical care, recently held at the Academy of Medicine, New York City,

Therefore, Be It Resolved, That the Union County Medical Society appoint a committee on costs of medical care. That the duties of the committee shall be to study the cost of medical care, the plans of practice and the cooperations with associated organizations.

The committee shall be composed of seven members as follows: The secretary of the Union County Medical Society and two other members of this society, to be selected by the president and secretary, together with one member each from the following organizations: The Union County Dental Society, El Dorado Chamber of Commerce, The Business and Professional Women's Club and the Self-Culture Club. The committee is requested to make as thorough and careful study as circumstances will permit and report their progress to the Union County Medical Society and to the other organizations on request or when they deem it expedient.

H. H. NIEHUSS, M. D.

Mr. President: I present this resolution I also move that it be adopted and that a copy be sent to the Secretary of the Arkansas Medical Society for publication in the Journal.

H. H. NIEHUSS, M. D.

RESOLUTION

Whereas, God in His infinite wisdom has taken from our midst our colleague and fellow member of the Johnson County Medical Society, Doctor Robert Newton Manley, and

Whereas, we, the Johnson County Medical Society, in session duly assembled, do hereby authorize, resolve, and offer the following resolution:

Resolved, that in the untimely death of our beloved brother physician, Robert Newton Manley, not only we, but all of Johnson County have lost one of its most efficient and loyal citizens. He was graduated from the University of Arkansas Medical School in 1912, and he practiced medicine in Johnson County until January 1, 1932. He served as First Lieutenant in the Medical Corps during the late World War. At the time of his death he was surgeon at the Indian Reservation Hospital, at Ponsford, Minnesota. He was president of our organization in 1931 and was an active member at his death.

Therefore, Be It Further Resolved, that the Johnson County Medical Society express to Mrs. Manley and family our sympathy at the loss of Doctor Manley, and our appreciation for the faithful service rendered by him while in our midst.

Be It Further Resolved, that this resolution be entered upon the permanent records of this society and that the Secretary transmit a copy thereof to the family; also that copies be sent to the Journal of the Arkansas Medi-

cal Society and to the local papers for publication.

JOHNSON COUNTY MEDICAL SOCIETY
G. R. Siegel, M. D., *President.*
Earle H. Hunt, M. D., *Secretary.*

Obituary

LENOW, JAMES HORACE—Dr. J. H. Lenow of Little Rock, aged 83, died December 30, 1932. The only son of James Lenow and India Leake, was born in Memphis, Tennessee, February 18, 1849. He attended the private schools of Memphis and, although under the age for enlistment in the Confederate Army, he served as a courier and later became an enlisted member of McDonald's Batallion in the West.

After returning from the war, Dr. Lenow entered Kentucky Military Institute and, following his graduation, he entered Bellvue Hospital Medical College. The following year he matriculated to the Jefferson Medical College, Philadelphia, from which school he was graduated in April, 1872, and moved to Little Rock to begin the practice of medicine.

Dr. Lenow served the Arkansas Medical Society as its president in 1910. He was a former dean of the University of Arkansas, School of Medicine, and the last surviving member of the original faculty of the school.

Dr. Lenow was married first in 1883 to Mrs. Ella Davis Fones. In November, 1922, he was married to Mrs. Clara Louise Goddard of Little Rock, who survives him. He is also survived by two daughters, Mrs. T. A. Shea of Rayville, Louisiana, and Mrs. J. S. Maloney of Little Rock, and one son, Harrell Leake Lenow of Little Rock.

WARREN, GUSTAVUS ALBERT—Dr. G. A. Warren of Black Rock died December 26, 1932. Aged 67. Dr. Warren was injured in an automobile accident during a sleet storm in November, and was thought to be recovering when he suffered a heart attack which caused his death.

Dr. Warren was one of the most widely known men in his section of the State, where he had practiced medicine for forty years. He was active in his county and the State medical societies, having served as president of both organizations. He had distinguished himself in Masonic circles and served the Grand Lodge as grand master, having previously filled all the offices of the organization. He was president of the White and Black River Bridge Company, operating toll bridges at Des Are and Powhatan, and a director of the First National Bank of Black Rock.

Surviving are his wife, two daughters, Mrs. Lester L. Gibson of Washington, and Mrs. Sam B. Chism of Helena; two sons, Charles Warren of Wichita, Kansas, and Walker Warren of Little Rock.

County Societies

FAULKNER COUNTY

(Reported by Dr. Marcus T. Smith, Sec.)

The Faulkner County Medical Society met December 22, 1932, and the following officers were elected for 1933: President, Dr. H. E. Cureton, Conway; vice-president, Dr. Louis S. Dunaway, Conway; secretary-treasurer, Dr. Marcus T. Smith, Conway.

Talks were made by Professor F. H. Harrin of Arkansas State Teachers' College, Miss Laura Hall, County nurse, Miss Agnes Compton, Home Demonstration Agent, and Miss Stuber of Little Rock. The White House Conference was discussed by the speakers and the meeting was one of unusual interest.

OUACHITA COUNTY

(Reported by R. B. Robins, Sec.)

The Ouachita County Medical Society met December 1, 1932, at the Orlando Hotel in Camden, with sixteen members present. A banquet preceded the business session.

A program of "Medical Economics" was rendered with the following speakers:

"How to Keep the Money"—Mr. Wm. R. Barrow, President, Commercial National Bank, Shreveport, Louisiana.

"Medical Economics"—Dr. S. C. Barrow, Shreveport, Louisiana.

Dr. Barrow stated that it was time the doctors discarded some of the antiquated traditions that they were following, especially in regard to the care of charity. He said that when a family was in need of clothing the dry goods merchant was not expected to furnish it; when they were in need of groceries the grocer was not expected to furnish the groceries, and why should the physician be expected to furnish his commodity, medical

service. He stated that this was a responsibility of the public and should be assumed by the public, and that the physicians should not be expected to serve on the staff of a charity hospital without pay. Dr. Barrow's message was a wonderful message and should be broadcast to the medical profession.

The Woman's Auxiliary met at the home of Dr. and Mrs. N. S. Word, where they were delightfully entertained and served a turkey dinner.

(Additional County Societies on page 170)

Book Reviews

The Human Voice: Its Care and Development. By Leon Felderman, M. D. Published by Henry Holt and Company, New York. Price, $2.50.

This book is offered as an auxiliary to vocal instruction and those who use their voices professionally will find it invaluable. There are chapters on such subjects as the effect of alcohol and tobacco on the voice, of fear and fatigue, of the importance of proper salivary secretion, and of anomolies of speech.

Gonorrhea in the Male and Female. By Percy S. Pelouze, M. D., Associate in Urology and Assistant Genito-Urinary Surgeon at the University of Pennsylvania; Fellow of the Philadelphia College of Physicians, Philadelphia, Pa. Second Edition, Revised. 440 pages with 92 illustrations. Published by W. B. Saunders Company. Cloth, $5.50 net.

The reading of this book greatly helps our understanding of what is unquestionably our saddest and perhaps our most prevalent disease.

Part one, describes "Gonococcal Infections in the Male"; Part two, "An Analysis of Case Histories," and Part three, "Gonorrhea in the Female."

Fundamentals of Dermatology by Alfred Schalek, M. D., Professor of Dermatology and Syphilology, University of Nebraska, College of Medicine; Formerly Assistant Professor of Dermatology, Rush Medical College. Second Edition, Thoroughly Revised. Illustrated with 58 engravings. Published by Lea & Febiger, Philadelphia. Price, $3.00, net.

In this little volume the fundamentals of dermatology are given in a concise and thorough manner. The illustrations represent the diseases which come most often to the attention of the general practitioner.

Radiologic Maxims. By Harold Swanberg, B.Sc., M. D., F. A. C. P., Editor, The Radiological Review: Radiologist, Saint Mary's Hospital and Blessing Hospital, Quincy, Ilinois; Past President, Section of Radiology Illinois State Medical Society. With a foreword by Henry Schmitz, A. M., M. D., L. L. D., F. A. C. R., F. A. C. S., Professor of Gynecology and Head of the Department, Loyola University School of Medicine. Published by Radiological Review Publishing Company, Quincy, Illinois.

This book is principally a compilation of the maxims that have already appeared in The Radiological Review. There are also included short statements on radiologic subjects from the current literature.

The manuscript of the entire book was submitted for approval and suggestions to three pioneer radiologist—Drs. Pfahler, LeWald and Pirie.

The author is to be congratulated in furnishing the profession with so much valuable information in a very compact and entrancing manner.

Electrotherapy and the Elements of Light Therapy. By Richard Kovacs, M. D., Clinical Professor and Director of Physical Therapy, Polyclinic Medical School and Hospital, New York. Illustrated with 211 engravings. Published by Lea & Febiger, Philadelphia.

The plan of this volumn is briefly as follows: Beginning with elementary electrophysics to lead up to the physics of the different electrical currents covering the apparatus for their production, explaining their action on the body and describing the technique of application, the indications, contraindications and the possible dangers involved. A section on Applied Electrotherapy discusses the rationale and the methods of application in the principal pathological conditions. The correlated or interchangeable use of other and often simpler, physical measures is emphasized throughout. A brief exposition of the theory and practice of light therapy has been added and will serve as a practical guide for the beginner in electrotherapy and light therapy.

During the last two decades the use of various physical therapeutic agents has developed to such a degree that it has practically revolutionized treatment in dermatology. As a result, in this volume Chapter XXXV is devoted to Electrotherapy in Dermatology by Dr. Joseph Jordan Eller.

Selected Article

TUBERCULOSIS CASE FINDING CLINIC*

S. J. Wolfermann, M. D., Fort Smith

From a public health standpoint the case finding clinic is the medical beginning of tuberculosis prevention, for its very idea is to find the unknown and unsuspected case, and, as has been emphasized many times, it is the unknown positive sputum case that is responsible for a large percentage of tuberculosis spread.

Secondly, if the case finding clinic is functioning properly, it brings in for diagnosis the very early active case which can be so easily arrested when put under proper treatment. The ideal toward which all tuberculosis preventive work should strive is to get all cases diagnosed in the minimal active stage. If this were possible, then under adequate routine and treatment practically all cases would soon be inactive and arrested. There would be no progress to sputum positives, no dissemination, and therefore, finally no future pulmonary tuberculosis. I have maintained with many others for quite some years that the solution to the tuberculosis problem lies not so much in the treatment, but in early diagnosis.

May I digress a moment to recall an incident on this very phase familiar possibly to some of the older workers and physicians. In this city in May, 1914, I read a paper before the State Medical Association on "The Diagnosis of Incipient Tuberculosis." At that time, fresh from the St. Louis Municipal Tuberculosis Clinic, I was enthused with the early diagnosis idea. We were trying to attract physicians to the idea of searching for tuberculosis before the cough and sputum stage. The discussion of my paper by some physicians on that day, who ridiculed the fact of diagnosing tuberculosis without finding the tubercle bacilli, was most discouraging. Fortunately there were at that time some men in Arkansas, who rose to my rescue in their discussion, but I left Little Rock that day feeling very blue. That was not limited to Arkansas, for about five months later I had a similar experience at Oklahoma City. Today one does not encounter that antagonism from physicians.

The case finding clinic, therefore, deals entirely with the diagnosis, and as such fulfills the first big step in prevention.

Good work in both the permanent and occasional clinic is much dependent upon the social service and nursing phase. Some one, or some thing must get the suspect to the clinic. This is accompanied first by publicity. A tuberculosis conscious public is a necessity for bringing in early suspects. An educational campaign whereby the public is conversant with the early symptoms of tuberculosis is equally important. An educated and interested medical profession, that does not assume without examination, that slight temperature, fatigue, lassitude, weight loss, is chronic malaria, is certainly necessary; and finally, but of great importance, is a social service or nursing division that traces every contact of every previously diagnosed case of tuberculosis, a department which thoroughly works both backward and forward from the diagnosed case. Where tuberculosis cases are not reported, death records supply a store of information for the nurse. This latter department when functioning properly will bring in more suspects and accomplish more good than any other.

This phase of the work, so important for the ground work of prevention, needs much in diplomacy and tact. Unfortunately at this time, in this state the work of the public health nurse and social worker, both in general and specialized work, is being questioned by many of the medical profession. Many of the physicians of this state are antagonistic to any nurse or worker who enters their community on a public health measure.

From personal observation some of these physicians have due and just cause to feel as they do. It is unfortunate for preventive health measures that a majority must suffer for the acts of a few, but it is a very definite fact that in the past few years in some counties of this state we have had some very tactless and undiplomatic health workers. The

*Read before the Annual Meeting of the Arkansas Tuberculosis Association, 1932.

entire controversy, which occupied several hours time at the House of Delegates meeting of the State Medical Soeiety in April, and bids fair to take even greater time this coming year, could and should, have been avoided.

Public health work is a necessity. Public health and social service workers are equally necessary, and if their work is properly, taetfully and diplomatically done, it will in no way antagonize the physician in the community where they work. The interest, cooperation and good will of the medical profession is an absolute neeessity for effieient tuberculosis prevention.

Clinies should only be held in conjunction with the county medical societies and local physieians should always be a part of the elinic personnel. Most physicians are sensitive and object to a nurse taking one of their eases tc another physician for charity work when the patient is able to pay for an examination. When patients are able to pay, they should be sent to their family physician. If he wishes he can then refer the case to someone else for chest examination. By such a procedure the case then remains his, for it will be referred back to him from the physician to whom he sends it. The patient then gets good work, pays for it as he should, and is not taught the ever increasing evil of getting good medicine for nothing.

Patients unable to pay belong at the case finding clinic, or any private patient, able to pay, who is sent there by his family physieian, but not sent there by the nurse or worker. Some of you may think I am quite radical in my views, but may I assure you that this is the eonsensus of medical opinion in this state.

In my position as Secretary of the Council of the State Medical Society, I have not only visited the counties in my own district, but am handling the eorrespondence for the other district, and there must be a change in the health methods in this state in order not to antagonize the local physicians. All of this eontroversy and antagonism is unnecessary, for competent, good public health work can be done without offending the most sensitive doctor.

When the clinie is held, it must be understood that its purpose is a weeding out process and a diagnosing of suspects. Of course the advaneed case can be easily diagnosed most of the time, but the absolute diagnosis of the early ease cannot be done in one examination. It can be suspected and referred to the family doctor or health physician for complete diagnosis. Very early tuberculosis is a diagnosis by exclusion, and certainly cannot be made, exeept by observation, repeated examinations, and often laboratory and *X*-ray work. The examiner's function is to carefully examine all chests and list those having suspicious lung findings. These should be recorded and this record followed up in the permanent clinic to a complete diagnosis, or sent to the family doctor for further observation and analysis.

Where there is competent nursing service, a temperature record on suspects brought to the clinie, is a great help. All cases should have a brief but concise history for the examiner to read at the time the case is examined.

It is very difficult to describe a method for diagnosing early pulmonary tuberculosis. The National Tubereulosis Association has available several excellent pamphlets. Each physician after a few years of experience has his own pet method, the basic principle of which is modeled, of course, on that of his predecessors. I believe so strongly that the early diagnosis is neeesarily one of exclusion that I can hardly see how the diagnosis can be made without an accompanying competent physical examination.

To be sure a history of exposure and repeated eontact is a very important factor, but I belong to the group who believe that tubereulosis exposure is universal whenever adults are considered. A history of lassitude, lanquor, unexplained fatigue, and frequent attacks of colds, all make one suspicious. A typical afternoon rise of temperature with subnormal morning temperature is a very suggestive sign, yet other diseases may imitate this temperature, and still tuberculosis may be present with the so-called "inverse" temperature. Upon physical examination, posture, habitus and condition of body nourishment all influence the examiner. Careful inspection of the chest often shows eontracture, or inspiratory or expiratory lag. Careful palpation may show muscle spasm. Lag, plus spasm, would eertainly make one suspicious; painstaking light percussion will often bring out relative dullness. If this is done after auscultation, the advanced case will be then detected and percussion found unnecessary, or can be very carefully done. This will avoid the argument as to whether or not

percussion is bad for the advanced chest. Under normal or slightly increased breathing, auscultation is most important. There is nothing I know of that is absolutely characteristic of the tuberculosis rale. In early tuberculosis it is most often fine, moist and crackling. Its greatest, and to my belief, most important attribute is that it is constant, persistent and localized, and for that very reason I believe two or more examinations of a chest are absolutely necessary for any early diagnosis. If time permits, normal breathing first, then a check of all suspicious areas by breathing and expiratory cough. A rale of the above type, persisting after cough, is doubly suspicious. I believe all examinations should be made with the patient breathing through the month, for air, passing through the nasal passages will often encounter mucous and make a "rale sound" transmitted into the chest. Muscle sounds must be eliminated, and if you have not already tried this little experiment, may I suggest that you put your stethoscope on someone's biceps muscle and ask them to slowly flex the arm and see what beautiful fine, crackling "rales" you hear. Increased whispered and spoken voice sounds all bespeak for pulmonary pathology.

A leukopenia count and a low blood pressure are suggestive, but far from final or necessary. A basal metabolic rate, minus when the patient is free of temperature, will help rule out early hyperthyroidism, which in my personal experience is one of the conditions most difficult to differentiate. The value of the Mantoux or other tuberculin tests in children is exceedingly great and should be routine. These same tests in adults are the subject of debate.

In this state with the limited personnel that we have, and due also to the fact that many case finding clinics are held in towns remote from the examiner, I would suggest that it would decidedly facilitate the examination if all suspects under 14 would be given the Mantoux test 48 hours previous to holding of the clinic. In every town some local physician can be found to apply this test. Then on the day of the clinic these tests can be read, the physical examination done on the positive reactors and *X*-ray ordered. It should be needless for me to remind workers in tuberculosis of the small percentage of tuberculous children who show physical signs upon lung examination. Consequently, physical examination of children in itself is entirely inadequate and much time can be saved and efficiency of the case finding clinic increased, by using this method.

The subject of *X*-ray is still debated by many physicians, and time does not permit many views at this time, though it may be brought up in the general discussion. I believe *X*-ray of the positive reactors in children is an absolute necessity. In adults it is a most valuable adjunct, at times unnecessary for diagnosis, but always valuable in study of type, extent and record of progress of the lesion. Practically all adult chests show tuberculosis scarring on *X*-ray. Differentiation must be made here between tuberculosis infection and tuberculous disease. Most all of us have had tuberculous infection, but how many have the tuberculous disease at the time of examination. Rarely, in *X*-ray studies, one finds a smudginess so suggestive of acute congestion and active tuberculosis.

The practice of asking a roentgenologist to diagnose active tuberculous disease from an *X*-ray plate, as is too often done, seems to me to be a false idea. The best the plate can tell is the location of scarring; whether old or new is often in doubt, but if the examiner hears his persistent, localized, fine, crepitant, moist rales in the area that the roentgenologist independently reports a tuberculous shadow, then I believe the *X*-ray is ideal, and that is the method I prefer. The tendency of the age is to shift too much to laboratory procedures and neglect the physical examination.

This paper has become quite lengthy, and still I must apologize for the superficial and hasty manner in which many points have been covered. As long as the diagnosis of early tuberculosis is an opinion diagnosis, which it is, and not an absolute proven one, just so long will there be many good methods for arriving at that opinion, and equally long will there be many points of disagreement.

If I have to the slightest degree stimulated a greater interest in earlier diagnosis, and in any way helped to outline a more cooperative and pleasant association of nurse, worker and physician, then the mission of this paper is fulfilled.

FOR SALE—Exceptional general practice and well equipped office, including surgical instruments, drugs and medical library, of the late Dr. G. A. Warren of Black Rock. For further information, write Mrs. G. A. Warren, Black Rock, Ark.

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Original Articles

INDICATIONS FOR SURGERY IN PULMONARY TUBERCULOSIS*

FRED H. KROCK, M. D., Fort Smith

For the past fifty years the mind of the surgeon has been actively engaged with the problem of the treatment of pulmonary tuberculosis. Many bizarre and radical procedures, such as excision of an entire lobe for an early apical lesion, have been attempted, and with a sufficient degree of success to encourage further research along this line. The development of the modern scientific surgical treatment has been one of the outstanding contributions to the field of surgery in the past twenty years. The surgeon working in this field has been forced to face the handicap of dealing with a patient who is not primarily a good surgical risk, who is exhausted mentally and physically by a long standing and debilitating illness, yet has emerged triumphant with a report of 37 per cent cured and 24 per cent greatly improved among the patients whom he has had to treat.

Surgery in pulmonary tuberculosis is based upon two important surgical principles; namely, rest and collapse of the affected lung. The former principle has long been employed in the treatment of other diseases and even of tuberculosis in other parts of the body, as of the joints, but has been almost neglected when these foci occur in the lungs exeept in so far as could be obtained by rest in bed.

The appearance of a cavity in the lung of a patient with tuberculosis had almost been considered to be the ringing of the death knell for that patient. In a series of 1,454 cases with cavitation recently studied, 80 per cent were found to be dead at the expiration of twelve months from the time of the appearance of their cavity. A cavity in lung, as one in bone, almost never can collapse and heal because of the rigid nature of the bony thoracic cage, and because of the constantly changing intrathoracic pressure to which it is subjected during inspiration and expiration. The cavity therefore fills with necrotic material and pus which is laden with tubercle bacilli, and sprayed over the entire bronchial tree during the act of coughing, resulting in dissemination of the infection, development of new foci, and rapid termination. Modern collapse therapy by surgical methods has placed the chances of this patient to get well, almost on an even basis with the patient with an early apical lesion, in whom modern sanatorium management has achieved such an enviable record.

This country has been extremely slow in the adoption of this form of therapy. Even comparatively simple procedures as artificial pneumothorax, which was proposed in 1825 by James Carson, and used in 1882 by Forlanini, has only come into universal adoption during the past few years. It is interesting to note in this connection that our own John B. Murphy in 1895 reported five cases of pulmonary tuberculosis treated by artificial pneumothorax with benefit, independently of continental workers. Up until 1925 only 300 thoracoplasties had been reported in this country while the number ran up into several thousand in Europe. It has been estimated that today there are 30,000 patients with pulmonary tuberculosis in this country in whom surgical procedures are indicated, and who will surely die of their disease unless given the benefit of this form of treatment.

The surgical treatment of pulmonary tuberculosis is somewhat limited in its scope in that it is not applicable in its simplest form of artificial pnuemothorax to more than 10 per cent of the patients and major procedures, as thoracoplasty, to not more than 2 to 4 per cent. For this reason we must have a very clear cut understanding of the indications and contraindications.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

Given a patient who is not improving on other forms of treatment, the first requirement is that the involvement be unilateral or at the most that the contralateral lung be in a quiescent stage. It is useless to collapse and put at rest one lung, thereby throwing a double burden of respiration upon the opposite lung, already weakened by disease, and expect improvement to take place.

It has also been found that the response to surgical collapse therapy depends upon the biological type of reaction of the individual to the presence of tubercle bacilli in his lungs which in turn varies according to individual immunity and resistance, age, race, previous infection, dosage of tubercle bacilli received, and other factors.

The classifications of the German pathologists, notable Ranke, Frankel, and Aschoff, of pulmonary tuberculosis into an exudative and a proliferative type, constitutes a good clinical working basis. The exudative type represents the acute infection in an individual with a poor natural resistance, who has received an overwhelming dose of the bacilli. Histologically it is an exudation of a fluid containing cellular elements from the blood and epithelial cells from the walls of the alveoli into the parenchyma of the lung around the invading organisms. Clinically it may resemble an ordinary broncho or lobar pneumonia, from which it may be difficult to differentiate in the early stages. It may terminate by absorption of the exudate, by caseation and cavitation, or by fibrosis and calcification. The proliferative type on the other hand represents the chronic stage of the disease, in an individual with a strong natural resistance, who has received a minimal dosage of the organisms. Microscopically it is the typical textbook picture of the tubercle, with giant cells, epitheliod cells, fibrosis and scar formation. Occasionally caseation and cavitation result, and sometimes calcification. Healing is expressed in terms of scar tissue. This reaction of the host to the irritant bacilli by encapsulation and fibrosis may sometimes be so excessive as to produce marked deformity of the chest, great displacement of the mediastinal structures, and considerable embarrassment of the circulatory apparatus. It is in the chronic fibrotic type that surgery receives its widest application.

The clinical differentiation between these two types requires a high degree of skill and long experience. Briefly the following points may be helpful:

Exudative Type

1. History of duration limited to weeks or a few months.

2. The temperature is febrile in the afternoon. In frank broncho or lobar pneumonic types it may be high and hectic.

3. There are symptoms of toxicity; as a feeling of weakness, pale skin, hectic flush, anorexia and loss of weight.

4. There are few changes in the contour of the chest.

5. Physical signs may indicate a lobular or lobar consolidation with fluid in alveoli and terminal bronchioles.

6. *X*-ray shows ill-defined outlines of the process or consolidation of lobules and lobes. The characteristic "snow flake" appearance may be present.

Proliferative Type

1. History of duration extends over months and commonly over years.

2. Patient is fever free or the temperature is sub-febrile.

3. There are few signs of acute toxemia.

4. Changes in contour of thorax are apparent on the affected side:

(a) Atrophy of muscles. Especially apparent in the pectorals and intercostals.

(b) Atrophy of the breasts.

(c) Supra and infraclavicular fossae may be sunken.

(d) Space between ribs may be decreased.

(e) Expansion may be limited and shoulder depressed.

5. Physical signs are not reliable guides.

6. *X*-ray may show smaller lung fields and displacement of the mediastinum (especially the trachea) toward the affected side, and the presence of circumscribed nodules which are sharply outlined. In addition there may be evidence of abundant calcification.

Since pulmonary tuberculosis rarely occurs strictly unilateral, and since its manifestations are seldom confined to a pure form of one of these two types but rather a combination, fine surgical judgment is required in a given case to decide whether or not surgical procedures will be of benefit. The phthisiotherapist who has had the patient under observation for months is better able to do this

than the surgeon who sees the patient for the first time. Displacement of the trachea should always be demonstrated before major surgical procedures are decided upon. The decision to operate should always be the outcome of the closest type of consultation and cooperation between the surgeon and the internist trained in the treatment of tuberculosis.

The most efficient form of surgical collapse is that induced and maintained by artificial pneumothorax but unfortunately this procedure is technically unsuccessful in more than half of the cases and it is in order to give the remaining 60 per cent the benefit of collapse therapy that other operations have been devised. Saugman reported in 1919 a series of 220 cases treated by the use of artificial pneumothorax between 1907 and 1916, and found that at this time that 38 per cent were able to do light work and that 56 per cent had died from tuberculosis. This is a remarkable advance when it is considered that he was dealing with a hopeless group of patients, with a life expectancy of 15 months, and that the number of cases improved in the average sanatorium at that time was 7 per cent.

In a series of 600 cases treated by artificial pneumothorax, Matson, Matson and Bisaillon reported that in the group in which complete collapse could be obtained 48 per cent were clinically well, while in those in whom only a partial collapse could be effected, only 11 per cent were well, and in the remaining group in which no pleural space could be found, that less than 5 per cent were well.

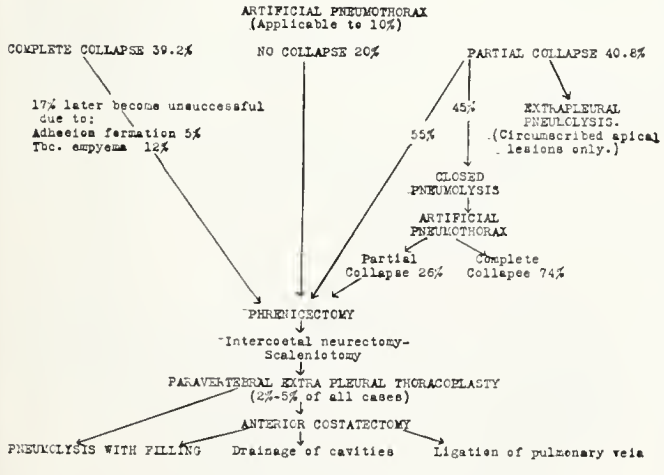

Fig. 1. DIAGRAM SHOWING INTER-RELATION BETWEEN SURGICAL PROCEDURES USED IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

Figure 1 shows the inter-relation of the various surgical procedures applicable to pulmonary tuberculosis. Complete collapse of the lung after artificial pneumothorax is prevented in 60 per cent of the cases by adhesions between the visceral and parietal pleura, and in 45 per cent of these cases in which some degree of collapse is obtained, these adhesions are string or band like in character and suitable for division by the closed intrapleural pneumolysis of Jacobaeus and Unverricht. A thoracoscope, which is a modified cystoscope, is introduced into the chest through a puncture wound, the adhesions localized, and in suitable cases divided by the actual cautery or electro-coagulation introduced through a second puncture wound. This operation requires a high degree of skill, is time consuming, and is followed in about half of the cases by an exudation of a fluid often purulent. The operation is followed by the use of artificial pneumothorax to maintain the collapse. In the hands of Matson who has performed a large number of these operations, the results have been excellent and approach those obtained in Group I. If the adhesions are confined to the upper lobe, extrapleural pneumolysis with resection of five ribs over the area may suffice. Open intrapleural division of the adhesions has been recommended, but the risk from this operation equals that of a thoracoplasty with far less satisfactory end results, which limits its usefulness to the occasional case.

For the 17 per cent of complete collapse cases which later become unsuccessful due to fluid or adhesion formation, the 55 per cent of partial collapse cases for which the operation of Jacobaeus is not indicated, and in the 26 per cent in which it is not technically successful, and in the group of no collapse, further compressive measures are indicated. The next step in our practice has been to effect a hemidiaphragmatic paralysis by avulsion of the phrenic nerve on the affected side. Stuertz in 1911 devised this operation for treatment of cavernous disease of the lower lobe of the bronchiectatic variety and had such encouraging results that he soon applied it to cases of pulmonary tuberculosis. This operation is known as phrenicotomy, phreniceetomy, phrenic exairesis, or phrenic neurectomy. Following a successful operation there is a rise of the diaphragm of as much as six inches and dimunition of the pleural space of from

400 to 800 cc. or from one-sixth to one-third of the total volume. In addition the actual work performed by the lung is greatly lessened because it is freed from the action of one of the chief muscles of respiration.

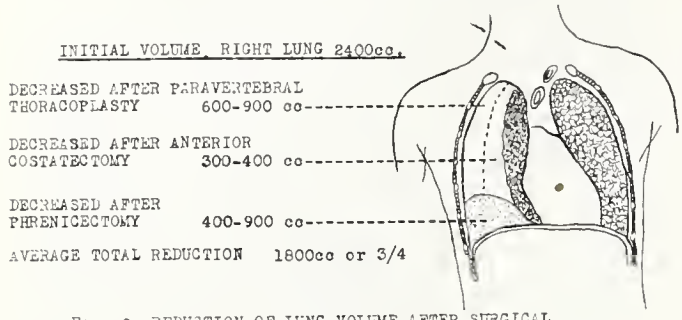

Fig. 2. REDUCTION OF LUNG VOLUME AFTER SURGICAL PROCEDURES.

We have favored avulsion of the distal portion of the phrenic nerve rather than simple section because as the anatomical investigations of Felix have shown, the presence of an accessory phrenic nerve in 30 per cent of the cases, arising from the fifth cervical segment and joining the main trunk below the clavicle, will cause the paralysis of the diaphragm to be incomplete unless destroyed by avulsion of the main trunk. Because of the intimate relation of the phrenic nerve to the great vessels of the thorax, the operative risk is increased to .6 per cent by exeresis.

In 60 cases in which we have employed this operation, sufficient time has elapsed to allow us to study the end results which are shown in Fig 3.

	TECHNICALLY SUCCESSFUL	OVER 15 MONTHS P. O.
NUMBER	57	39
QUIESCENT	4	4
	or 54.4%	or 53.8%
IMPROVED	27	17
UNIMPROVED	14 or 24.6%	9 or 23.1%
DEAD	10 or 17.5%	7 or 18%
NO FOLLOW UP	2	2

Fig. 3. Table of end results 15 months after phrenicectomy.

The value of this procedure is clear when it is considered that this group of patients represents a group which was steadily going down hill under other forms of treatment and in which 80 per cent are ordinarily dead within 12 months. The results show that not only are 77.8 per cent living after fifteen months but that of this number 54.8 per cent are improved, which we feel is sufficient evidence that phrenicectomy has earned a place as an independent procedure rather than as a mere preliminary to thoracoplasty as advocated by many authorities. On the other hand we cannot agree with the enthusiasts who advise its use in early apical lesions and in those cases ordinarily well controlled by artificial pneumothorax in preference to the latter. It does not appear rational to perform an operation which will permanently cripple one side of the chest, which is a decided handicap in the event of the later occurrence of a bronchitis or pneumonia, when less radical measures as artificial pneumothorax, which will allow expansion and restoration of function of the affected lung after an arrest is secured, might achieve the desired result. We feel that this operation should be restricted to those cases who show no improvement after rest or the use of artificial pneumothorax for two or three months. The specific indications in the order of their importance are as follows:

1. In predominantly proliferative tuberculosis with cavitation. Especially as a preliminary procedure to thoracoplasty.
2. As an independent procedure in the proliferative type with cavities in the lower or middle lobes.
3. In circumscribed disease of the upper lobe.
4. In severe and moderately severe progressive febrile predominantly exudative type of phthisis where no result has been obtained by pneumothorax. Light or moderately severe involvement of the opposite lung may be present.
5. In the outspoken unilateral fibrotic type with tachycardia due to displacement of the heart.
6. To relieve persistent hemoptyses where pneumothorax is unsuccessful.
7. In the treatment of recurrent fluid, especially tuberculous empyema.
8. In those cases of satisfactory collapse after artificial pneumothorax where refills at the necessary intervals cannot be obtained by the patient.

This operation is contra-indicated in:

1. Extensive bilateral lesions.
2. Caseous pneumonia.
3. Presence of non-tuberculous lesions in opposite lung.

4. Severe cardiac decompensation, nephritis or diabetes.

5. Presence of tuberculosis in other organs.

As supplementary procedures for further placing the affected side at rest, scaleniotomy and intercostal neurectomy have shown considerable promise in selected cases, but at this writing have not been widely adopted.

The standard procedure for effecting further collapse is a thoracoplasty. As originally developed by Brauer and Friederich in 1907 it was found to carry with it a mortality of 26 per cent which made the operation too formidable. Incidentally it is this type of operation which the average text book of surgery today gives as the standard operation for tuberculosis, and which accounts for the unresponsive mood in which the average practitioner of medicine receives the subject of surgery in pulmonary tuberculosis.

In 1911 Sauerbruch modified this operation to its modern form which is known as the Wilms-Sauerbruch paravertebral extrapleural thoracoplasty and which has revolutionized surgery in this field. It consists of the subperiosteal resection of from 3 to 15 cm. of the I to XI ribs inclusive from the articulation of the rib with the transverse process of the vertebra laterally in one or more stages. The operative mortality of 20 to 30 per cent accompanying the one stage operation throws the balance of favor toward the two stage procedure with a mortality of 6 to 12 per cent. The chief indication for thoracoplasty are:

1. Severe unilateral tuberculosis with cavities which has not responded to other measures of treatment.

2. Moderately severe proliferative tuberculosis with marked deviation of mediastinum and interference with the heart action.

3. In unilateral, chiefly exudative, type of infection which is progressive in spite of pneumothorax treatment.

4. In empyema following pneumothorax, with or without drainage.

5. In repeated severe hemoptyses not controlled otherwise.

6. In the treatment of spontaneous pneumothorax of the valvular type. The operation is contra-indicated in the following cases:

1. Under 25 and over 40 years of age.

2. In bilateral involvement, and in cases with high fever.

3. In presence of non-tubercular disease of opposite lung.

4. Cardiac decompensation, nephritis or diabetes.

5. Simultaneous presence of tuberculosis in other organs.

The question of anesthesia for these operations is an important one. Most authorities prefer local anesthesia or a light nitrous oxide-oxygen narcosis or a combination of the two. The former carries with it the danger of novocaine poisoning because of the large amount of solution necessary for an operation of such an extent, and of which a number of cases have been reported. The latter is usually associated with a pumping type of respiration which technically handicaps the operator and may help disseminate the infection to the good lung. Sauerbruch uses ether by inhalation for general anesthesia, and has not observed any ill effects from it in spite of the time-worn teachings to the contrary. The majority of his cases are operated on using local anesthesia. In our clinic we have found avertin to be ideal for this operation since it produces narcosis with sufficient relaxation and a shallow type of respiration. It moreover is excreted entirely by the skin and kidneys, and results in a quiet sleep for a number of hours after operation. If necessary it can be supplemented by three ounces of ether in oil given per rectum.

Too short an interval has elapsed since operation to report the end results of our series of thoracoplasties, which will be made the basis of a subsequent paper. Alexander has collected records of 1,159 cases performed by a number of surgeons over the world, and found that 36.8 per cent were cured and 24.4 per cent greatly improved in this group of far advanced cases with a hopeless prognosis.

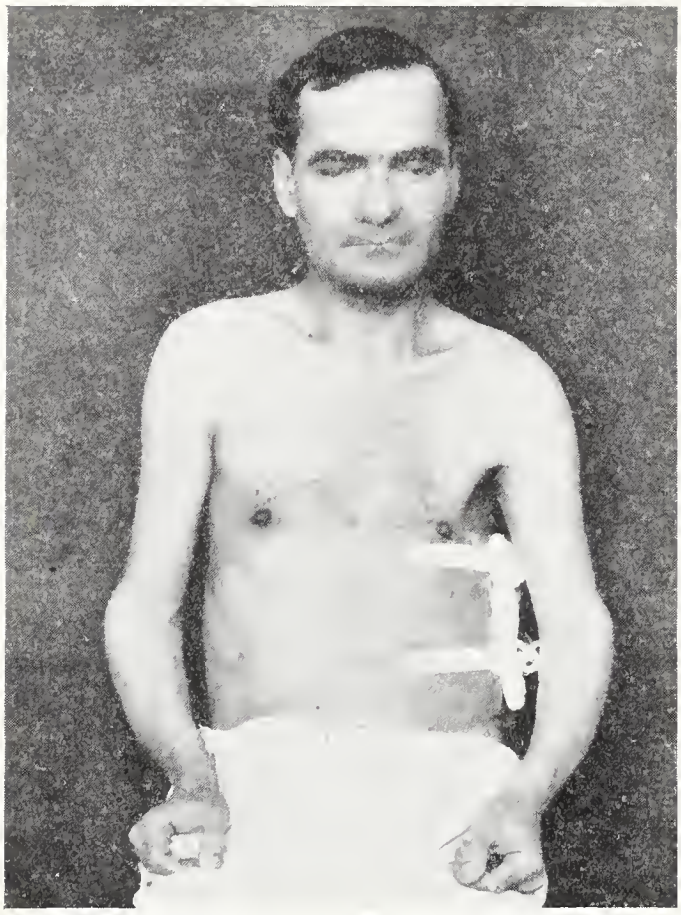

Fig. 4. Anterior view of patient following thoracoplasty.

Fig. 5. Posterior view of patient after thoracoplasty.

The impression that thoraeoplasty produees a terrifie deformity and mutilation, which is unfortunately prevalent among the profession and laiety alike, has prevented many sufferers from tubereulosis in whom the operation is indieated from seeking the benefits that exist in it. This belief is not founded on faet as there is surprisingly little resultant deformity after the modern paravertebral operation. (Fig. 4, 5.) The shoulder of the operated side is a trifle lower and more anterior; the supra and infra elavieular fossae are a little more prominent; and there is a slight seoliosis with deviation of the spine away from the affeeted side. In other words the changes produeed by Nature in a ehronie fibrotie type of tuberculosis are only exaggerated by the operation. Two or three weeks are required to reeover from the operation, after whieh the patient begins to feel better and his appetite improves, his cough and sputum to derease and he begins to gain weight.

If several months have elapsed after a paravertebral thoraeoplasty, and eomplete eollapse of a cavity or suffieient eompression is not effeeted, exeision of the anterior portion of the ribs ean now be safely carried out, since by this time the mediastinum is fixed, and the danger of mediastinal flutter, which is the ehief cause of death in the one stage operation, is obviated. Many eases ean be brought to a eure by this supplemental proeedure.

It is also possible to aetually eompress a cavity by extrapleural pneumolysis, and filling the spaee over the cavity with a plug of transplanted fat, peduneulated musele graft, or paraffin filling to maintain eompression. A large number of satisfactory results have been reported following this operation.

Conclusions

1. The surgieal treatment of pulmonary tubereulosis is able to save about 40 per eent of the far advaneed eases in whom it is indieated.

2. That surgery is indieated in any ease presenting chiefly unilateral involvement of the chronie fibrotic type who is not improving under other measures of treatment.

3. That phrenieeetomy has a distinct therapeutic value as an independent proeedure.

4. That surgery is not intended to, and never will supplant hygienic measures as earried out under the modern sanatorium regime, but is a valuable adjunet if properly employed.

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Lungenkollops bei Phthisis durch Resektion kleine Rippenstuck.

DISCUSSION

DR. J. D. RILEY, Booneville: I just want to say, that when we consider that the average lifetime of a case of tuberculosis with cavitation is fifteen months, and that most of these patients were given a chance without any form of surgical procedure, and that after we attempted to give them pneumothorax that finally the hopeless, incurable cases were referred to the surgeon; in view of these facts it is a remarkable thing that more than half of those cases after fifteen months showed improvement.

I don't think I can add anything to Dr. Krock's splendid paper. I do think it is a very accurate reflection of what modern authorities today think of surgery of the chest.

DR. CHAILLE JAMISON, New Orleans, La.: This is a most interesting paper, and on a subject I have been interested in for many years. I have charge, among my other services, of the tubercular patients at the charity hospital, the negro patients. Dr. Durell, who is the father of pneumothorax, I believe, in the city, has charge of the white patients. We have been doing pneumothorax for many years and other surgical procedures to such an extent now that I have a pavilion set aside only for those cases indicating pneumothorax. I want to heartily endorse all that Dr. Krock has said. I think we should remember that the great Murphy was one of the first men in this country to advocate pneumothorax and he advocated it independently of Folarnini. He wasn't aware that Folarnini had already advocated the procedure at all. Murphy went a little further than any of us would dare to, as he usually did. He recommended injecting the pleura to stop the hemorrhage. He just took a hand syringe or an ordinary hypodermic syringe and stuck it in and injected it; anything to stop the hemorrhage.

Of course, very little is to be added to what Dr. Krock has said. However, we are not sure in my service that we should put off the treatment of an acute exudative tuberculosis too long. If possible, we try to get it before cavitation has set in. Furthermore, the acute exudative form of tuberculosis is the form of tuberculosis in the negro and not the proliferative type which is the predominant type in the white man. We no longer collapse the lung entirely. We do compression. We usually start off with 200 cc. and then inject a little more each week. Of course, one can not compress a solid lung. We can do a great deal to put it at rest, and believe we put these cases off a little too long. We believe strongly in pneumothorax. We have seen such wonderful results in absolutely hopeless cases, because that is all you get in the negro. We try the pneumothorax very much earlier than many people would feel was justifiable, but we think the circumstances justify it.

Now, the next point I would like to make is this: that the French, who of course have the biggest problem in tuberculosis of any people in the world, would have advocated for a long time bilateral pneumothorax. We have done, of course, bilateral collapse and we have done bilateral compression. Very recently we have done it with quite good results. We have reserved phrenico-exairesis first of all for those cases where pneumothorax was impossible to perform, and that is quite often the case on account of the dense adhesions which we don't believe in forcing apart by compression. Next, we have used phrenico-exairesis with excellent results where the lower lobes of the lung were tuberculous. It seems to us that we get far better quieting of that particular lung by phrenico-exairesis. We haven't been using oleothorax, as the French have advocated for a long time—I have put it off probably from laziness. I believe that, particularly with the gomenol, has a place that we have neglected in the treatment of pulmonary tuberculosis.

Our results with thoracoplasty have been good, and I want to say that Dr. Krock is exactly right in following Archibold's statement—at least, he is the one I attribute the statement to—that thoracoplasty is not being done except in the proliferative type and the type that's making good progress. We have several cases of thoracoplasty in the negroes, notoriously two tuberculous subjects who are alive and well two or three years after the operation. I would like to add again that apparently the operation isn't a difficult one. Several operators have worked for me on various cases, some of them not specially trained in lung surgery, and they have gotten by with it exceedingly well. They have always done the operation in at least two stages, and I saw Ochsner do the three-stage operation.

I feel we are not giving enough attention to the surgical treatment of pulmonary tuberculosis.

DR. KROCK, in closing: I want to thank Dr. Riley and Dr. Jamison for their kind discussion of this paper. Dr. Jamison's last statement that we are not doing enough of this work in the treatment of pulmonary tuberculosis was my chief reason for presenting this subject to you today. As he told you, in the negro the pathological type of tuberculosis is chiefly the exudative type, which responds poorly to surgical collapse therapy of any type.

Up until 1925 less than 300 thoracoplasties were reported from this country while in Germany, Norway and Sweden, several thousand had been performed. I think that early surgery will be able to save many of these so-called hopeless cases, but I cannot agree with the attitude of some authorities who perform a phrenicectomy almost as soon as the diagnosis is made in an early apical lesion. I see no reason for permanently crippling one side of the chest for the rest of that patient's life when the desired collapse could be obtained by less radical measures. A number of cases have recently been reported in which after prolonged treatment by artificial pneumothorax the collapsed lung was allowed to re-expand and the patient continued to remain well. Restoration of function after phrenic exeresis cannot occur, and according to Matson there is a 25 per cent mortality rate attached if this patient later develops a severe bronchitis or pneumonia in his good lung. I believe that pneumothorax should be first tried in the majority of cases, and if after 2 or 3 months no improvement has occurred, then more radical measures should be considered.

THE ECONOMICAL SIDE OF MEDICAL PRACTICE

J. S. Wilson, M. D., Monticello

In a discussion of the value of health and medical care during the recent World War, I heard a vice-president of one of the great railroads say, that if anyone could convince the great corporations of the financial value of health, and show them it cost more to have disease than it did to prevent it among their employees, they would all immediately put in force the necessary means and measures to attain this end.

This statement was thoroughly demonstrated by the excellent health of the American army, during this war, and has been and is being demonstrated by the health of the employees of many of our large American

corporations who employ large numbers of trained workers.

That the citizens of all civilized nations are spared much illness with its physical and mental suffering and heavy financial losses, as well as high death rates, and thus gain many years of useful and happy living. People who lived fifty and one hundred years ago had to accept as a matter of course, or as they often did as a dispensation of Providence, is evident to anyone who will study medical history, or life insurance records.

It is apparent that the question of how this has been brought about, by whom, and at what expense is pertinent.

About one hundred years ago smallpox was rampant in the world, and carried a death rate sometimes as high as 50 per cent or above. Up until less than fifty years ago malaria was the scourge of not only the tropics, but of much of the delta parts of the temperate zones of the earth. It is just a little more than thirty years since yellow fever, the close relative of malaria, was shown to be like malaria in being carried from individual to individual by the bite of the mosquito, and the true facts with typhoid are even more recent.

Today these and many other devastating diseases are under the control of man, or, he knows how to protect himself from them, and incidentally, this information is adding much to the resources of the world by making the belt around the globe of approximately 55 degrees, which we call the Tropic, and Semi-Tropic part of the earth habitable to the white man and his ever active brain.

The question of what all this is worth in any concrete sum or comparison is too gigantic for me to try to estimate. Suffice it to say, that the life expectancy of the average American child at birth has been raised almost double during the past seventy-five years, and that people live in happiness and comfort in rich delta districts which were formally the white man's graveyard, and have gained much from the control of many other diseases which are and were world-wide in their distribution.

The second business question of what has all this cost, as compared to its value, is pertinent.

We might say, it has about doubled the life of the average American. It has made him happy homes in rich places where he formerly dared not live. The most outstanding example of this last is the success of the Panama Canal work.

It has freed the average individual of the scourge of smallpox, typhoid, malaria, and many other similar conditions, with their cost of pain, disability, financial loss, and death rates. Some idea of this saving can be had when it is known that the death rate of typhoid in the United States is approximately 10 per cent, and that the cost of the average case is put at $235.00, by the American Life Extension Institute, and that so eminent an authority as Dr. Bass of New Orleans says malaria alone costs the American people one hundred million dollars a year, and an article a few years ago appearing in the National Geographic Magazine said that in a belt of approximately 55 degrees around the globe, which is the home of malaria, one hundred million people die annually of this disease.

The next question which arises is, by what means and by whom has humanity been freed from these scourges to the extent which prevails at present?

There is one answer only to this question. The properly trained and conscientious medical men of the world have wrought this work, and are still doing it. I do not know a single exception to this statement.

The next question that arises is, at what cost and to whom has this work been done, and what are its returns?

The costs for these benefits to humanity are many. They have cost large sums of money, but in return for this money they have made possible such things as the construction and operation of the Panama Canal, the living in the Tropics by the white man, and reaping from the rich tropical soil many necessities and luxuries of life. Also this work has reduced the time lost from preventable illnesses and their financial costs. This alone is probably more valuable than the cost of its attainment. Not alone have these benefits to mankind cost money, but they have cost much practically of a sacrificial nature. Witness in this connection the fact that when Sir Patrick Manson was convinced that the mosquito was the true purveyor of malaria, he grew young mosquitoes in Rome, infected them by feeding them malarial blood, then sent them to London, and his son allowed

these infected mosquitoes to bite him and his classmates and developed malaria.

Also, the fact that in 1898, when Dr. Chas. Finley told the American authorities that he felt that the mosquito was intermediary in transmitting yellow fever, these physicians carried out the most dangerous experiments upon themselves, which resulted in the death of Dr. Jess W. Lazear and the very serious illness of Dr. Carroll. The recent death from yellow fever, while studying it in South Africa, of the brilliant little Japanese physician, Noguchi, adds another physician martyr, as the cost of these workers and mankind's benefactor.

Much is being said and written today about the costs of medical care, and much unrest prevails among the laiety and the profession in regard to the economical outlook.

When the facts are remembered that the medical man, and the medical man alone, has brought as much concrete value and freedom from suffering and danger as has been shown, it would seem that a grateful world would be ready to, at least, reward him for his work by a reasonable guarantee of his economical existence. But such are not the facts. In the United States today, there is probably more unrest about this thing than ever in history. Why should this be, after so brilliant accomplishments as the medical body has behind it? Apparently the reasons are many.

One of the first, which we as medical men should consider, are there any short comings within our own ranks? That some physicians are unscrupulous and take advantages of their opportunities cannot be denied, but one thing we can contend, unscrupulous physicians are no more numerous than unscrupulous men in other avocations of life.

Another thing, organized medicine is constantly trying to clean its own household of fraudulent members by every means at its command and this is not very evident in other avocations of life. This, to my mind, should be prosecuted to the fullest extent, and more of us who can be persuaded to accept the golden rule as our guide, the better for ourselves and our people.

Another cause of complaint about the cost of medical care is the pure fakers. In other words, the counterfeiters. Since it is known that nothing which is not genuine is ever counterfeited, it should be an honor to medical men to consider the fact that today we probably have more counterfeiters than any group of men in the world.

In witness of this fact, take the group of them and we find from above downward such as eclectics, homeopaths, etc., on down to the vilest vulture to prey on any people, as exemplified by chiropractors, cancer cure fakers, etc. I realize that in the two first named groups, fine men are found, but, I contend, that they are those who have climbed into this sanctuary by a side door, and have not come up the straight and narrow and more difficult way of a regular medical education and it is a known fact that from these irregulars most of the fraudulent practitioners of the country are found. If any doubt exists in this last statement, the experience of our own State and that of Connecticut, in incompetents attempting to be licensed from schools which were worse than a farce, by the boards representing these cults, may be cited.

Just how much these irregulars cost the American people, that they charge up to the cost of medical care, I would like to know, but usually against it, the cost of hospitals, medical schools, and many other activities such as public health work is charged.

Is it a square deal to charge all these varying things up to one group of men, who have, and still are doing their utmost to stifle their own incomes from active practice by never ceasing to carry on prophylaxis for the benefit of mankind generally. Another thing, how much has ever been done by any of these cultists, for any community, when calamity overtook it? Who ever heard of a chiropractor doing anything during flood, famine, or pestilence? Or, who ever knew of any of these donating anything for such work? Today, there is a scare of State medicine evident in medical circles. Are there any activities in this direction now? The answer is, yes. Two such activities are evident. They are the usual public health work done by a doctor and nurse in a county, and often by a sanitary worker, who is a non-medical individual. The other activity mentioned, is the enormous amount of medical service and hospitalization being furnished free to the individual, and paid for by the taxpayers of the land to ex-soldiers of the World War.

I, myself, am an ex-service man, was not conscripted, served eight months overseas, much of this time under German shellfire and constantly subject to airplane raids, besides

crossing the seas at a time when submarine activities were at their greatest, and I feel that this gives me a right to express myself, free from bias, on this vexatious question.

My impressions are that the Government should care for to the fullest extent, those disabled by their service, or for widows or orphans of those who lost their lives in the service. But, today, many men are receiving huge amounts of money from the taxation on the man who is carrying on the day's work almost crushing, and many of these same men never saw a ship, or had a casualty, and I know from examining many of them that they are in as good physical condition as they would have been if they had never seen a uniform. It is this last class of men who are helping make the burden of the taxpayer, and the load of the average doctor, heavy to bear, and my contention is they are not entitled to it, and I am one of them. Another thing, there was offered by the American Medical Association recently the "Shoulders" plan of medical care of ex-service men, which would have saved the taxpayers of this government many millions of dollars, and would have given the veterans better care than they are receiving, but the politicians have seen fit to decline this and to go on with an orgy of spending, which can only come from the taxpayer, who is doing the day's work.

In this connection the fact is evident, that we are in dire need of real men today, who are not only patriotic at parades and political meetings, but are ready to serve their county today by doing an honest day's work for their living, and not trying to extract this from the pockets of the taxpayers by way of the politician in Congress. Another feature is the fact that this whole system of practice is political, and as rotten as our State and National politics are today, and it is often said that the men holding these appointments could scarcely make a living in competition with any ordinary group of practitioners.

We, of the medical profession, believe that there are men in our ranks who are best trained and suited to carry on any kind of health work, be it preventative, or curative, and we further believe that the finest things in our profession, and the greatest benefits of it to our people, will be lost if we are in any way made the tool of politicians and pawned as political rewards to those who happen to be in authority.

Summarizing these random statements, we can say, that we believe the best services to the American people have been done in the past, and will continue to be done in the future, and at the least cost to the people, by the practitioner of medicine who owns his own soul and is free from political control to do as he and his people see best. We feel that the benefits to our people derived from our activities are more than we have cost them. We resent having the costs of the cultists, the unnecessary cost of medical care of individuals who are not entitled to it more than the average citizen, layed at our door, when this becomes unbearable to the overburdened taxpayers. We feel that it is economy to maintain a high state of efficiency in our own ranks, and the devestation of epidemics of disease in the past proves this to be a fact.

We feel that our entire body should not be blamed if a small minority of us prove that mercenary motives impel them in our midst, and that our past history of charity work, to those unable to pay for same and to the general public, in time of calamity, is proof enough that the average American physician can be trusted to work out his own salvation and render a better service than he ever will under the debasing influence of political influence in any form of State control, which under our system of government actually means political control. That such as this will destroy the sacred relation of physician to patient, and lower the standard of efficiency to such extent that our progress will be retarded many years.

That changes are coming is evident to any observer, and doctors always progressive, should never hinder progress, but study ways to render better service.

That medical service in large is a commodity, which must be paid for by some one is evident. Should this be taken over by the State, as in some European countries, is even now being considered by many.

That this would lower the quality of present service is equally as evident to those properly informed.

That like other commodities, medical service will about equal in quality the amount paid for it. No one would expect to obtain as good a hat or pair of shoes for $1.00 as he would for $10.00, likewise, no one need expect the high type and costly medical service

rendered in the United States during the past years at the price of the old cross-roads country doctor, with his inadequate training and equipment.

We hear much lament at the passing of this old type doctor; the true reason is his day has passed, and those who lament his passing would not use him if he were still here, because they demand better service than his renumeration would produce.

There are only two things to offer in solution of these problems. They are, render a lower and less expensive service, with its inevitable loss of health and life, or keep our faces to the sky, rendering a continually better service as our scientific findings point the way, and the populace find some way in which to pay the costs of this better service. We believe the latter is better for the world and constitutes true economy.

THE KLINE TEST FOR SYPHILIS*

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Modern methods of treatment have changed the entire clinical picture of syphilis, making an already obscure disease increasingly difficult to diagnose. At the present time the serological findings are of a great deal more importance in establishing a diagnosis of lues than ever before, but unfortunately our serological tests are not standardized and the older and hitherto dependable tests have been found to be lacking in a varying percentage of cases.

Within the past few years a great many new tests and modifications of the older ones have appeared with differing claims as to their value.

The Kline test has perhaps received more consideration from both clinicians and laboratory workers than any of the newer serological reactions for syphilis. It possesses distinct advantages over the other tests. Kline's method of extracting the antigen give us a more stable and refined product than any of the other methods of antigen extraction. The simplicity of the Kline technic with the corresponding decrease in source of error makes it a very desirable laboratory procedure. It is read microscopically and therefore gives a more accurate and uniform reading.

A great deal of experimental work has been done in an effort to establish the true value of the Kline test in the serological diagnosis of syphilis. Due to a lack of standardization of the other tests to which the Kline was compared, or, as is the case in some few instances, an improper conception of the Kline technic, there is at the present time a marked difference of opinion among competent authorities as to its true value.

In order to arrive at a more proper evaluation of the Kline test, a comparative study between it, the Kahn and the Kolmer modification of the Wassermann reaction was done on 3,600 blood specimens. The latter were selected as the most dependable and standardized of any other reactions. The work was done in the United States Public Health Clinic at Hot Springs on unselected sera taken routinely. These sera were inactivated at 37 degrees centigrade for thirty minutes. The Kolmer and Kahn were run according to their respective technics. The Kline emulsion was made up according to the formula in November number of Am. Jour. of Clinical and Laboratory Medicine. The antigen was obtained from La Motte Chemical Co., Baltimore, Md.

To 0.85 ccs. distilled water (Ph. about 6) was added 1.0 cc. of 1 per cent cholesterin (dissolved in absolute ethyl alcohol) and shaken for one minute. To this was added 0.1 cc. of antigen and this was shaken for one minute. Then 2.45 cc. of 0.85 per cent sodium chloride solution (Ph. about 6) was added. Then again the mixture was shaken for one minute.

The diagnostic emulsion was made by placing 1 cc. or more of the above in a narrow test tube (12 mm. inside diameter) in a water bath at 35 degrees centigrade for fifteen minutes. The heated emulsion was then ready for use.

The emulsion for the exclusion test was made by placing 2 cc. of the first solution in a narrow test tube (12 mm. inside diameter) in a water bath at 56 degrees centigrade for fifteen minutes. Then it was poured into a 3 x 1 tube and centrifuged for fifteen minutes at about 1,000 rotations per minute. The fluid was then decanted and with the tube inverted the inside of the tube was dried with cloth almost to the level of the sediment. To this sediment there was added 1.5 cc. of .85

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

per cent sodium chloride solution. The mixture was then transferred to a narrow tube for use.

Before going into a discussion of the findings in this series of blood specimens tested, it might be well to briefly review the nature and mechanism of the Kline test. It is a precipitine reaction brought about by the addition of the antigen to a hydrophobic colloidal solution of cholesterol. The antigen coats the cholesterol particles, and in the presence of the syphilitic antibody these particles agglutinate. The degree of agglutination depends upon the strength of the antibody present.

Of the 3,600 specimens tested, 2,039 were negative and 962 were positive in all three tests, thus giving a complete agreement on 30,001 tests or 83.69 per cent. The Wassermann and Kline agreed in 87.09 per cent in the Kahn and Kline in 84.69 per cent; the Wassermann and Kahn in 90.21 per cent.

599 or 16.31 per cent of the sera tested failed to agree in one or more of the three reactions. These sera were classified as proven luetic treated or untreated; doubtful luetic, treated or untreated; and non-luetic. By proven luetic is meant those cases giving history of previous positive Wassermann or dark field with well defined symptoms of lues with history of lesion or later agreement in positive serological tests. By doubtful luetic I mean cases having vague symptoms of lues, or history of suspicious lesion or no well defined positive serological reactions. The non-luetic were those cases wherein the serological findings were the only evidence of lues. By treated cases is meant those who had had previous treatment, or were under treatment at time of test; and by untreated I refer to those who have had no treatment whatsoever.

In conclusion I wish to say that this work proves the Kline to be an accurate and dependable serological test for syphilis, having certain distinct advantages over the Kahn and Kolmer Wassermann; in that the simplicity of the Kline technic and stability of the antigen decreases the source of error and makes it a desirable laboratory procedure. The microscopic reading increases the accuracy and uniformity of interpretation. The Kline test remains positive in treated cases of syphilis longer than either the Kahn or the Kolmer modification of the Wassermann reaction. The Kline test is positive in a certain number of chronic untreated cases of syphilis that give negative Wassermann and Kahn's. However, there is a smaller number of chronic untreated cases of syphilis that give negative Klines and positive Wassermann and Kahns. This percentage of agreement and disagreement agree approximately with the comparative studies done by other investigators.

TYPE	No.	Per Cent	Proven Treat.	Proven Untreat.	Doubt Treat.	Doubt Untreat.	Non-Luetic
1—, 2—, KL. NEG. WR. NEG. KA.	212	35.45	144	16	16	4	12
1—, 2—, K1. POS. WR. NEG. KN.	42	7	32	0	10	0	0
1—, 2—, K1. NEG. WR. POS. KN.	34	5.59	22	3	4	5	0
POS. KL. NEG. WR. NEG. KN.	80	13.35	62	0	14	0	4
POS. KL. POS. WR. NEG. KN.	92	15.35	78	0	14	0	0
POS. KL. NEG. WR. POS. KN.	34	5.59	26	2	2	4	0
NEG. KL. POS. WR. POS. KN.	26	4.34	20	0	6	0	0
NEG. KL. POS. WR. NEG. KN.	56	9.34	32	0	22	0	2
NEG. KL. NEG. WR. POS. KN.	23	3.5	10	0	8	5	0

DISCUSSION

DR. D. W. GOLDSTEIN, Fort Smith: In the evaluation of the laboratory tests, I believe you should consider the individual who does the testing. The work of Doctor Smith to my mind is conclusive evidence that the Kline test has its place in his work and by Doctor Smith, but if we are going to get anywhere with tests for syphilis, we should have a standard technic. The training and skill of the laboratory worker must be considered. It is a serious matter for us to send a specimen to the laboratory expecting the laboratory to make the diagnosis. I do not believe in entirely disregarding the therapeutic

test in all but primary and secondary syphilis. I do not believe the average individual or the average laboratory worker should do any individual test to the exclusion of other tests. They should be checked whether by the Kahn and Kolmer or the Kline and the Kahn.

In talking with Doctor Smith, he tells me that before his test was accepted by Doctor Kline, he did over 1,000 tests, and that Doctor Kline entirely disregarded in some cases even a 2 plus report. The simplicity of the Kline test makes it a dangerous test for the average individual to do. One will go wrong unless he has the experience that Doctor Smith has had. There is a distinct place for the Kline test, especially before transfusion, because you can do the test quickly and you have your report, and then you can go ahead with the transfusion. It is accepted as a standard technic.

DR. D. A. RHINEHART, Little Rock: Dr. Goldstein's point that no reliance on any one serological test should be absolute is well taken. It is wise to run more than one of these tests. That was very strikingly shown, I think, in Dr. Smith's tables, for many of the proved cases of syphilis gave a negative test by one method and a positive test by another.

MR. H. V. STEWART, Director of the State Hygienic Laboratory: In a comparative study of the Kline and Wassermann tests made by the State Hygienic Laboratory, we learned that with 222 Kline positives, 1, 2, 3, or 4 plus Wassermann negative sera, there were 69 per cent of the patients that were either then taking or had had treatment. Doctor Smith's studies disclose that of 326 Kline positive and Wassermann negative sera 249 or 76 per cent were known syphilitics. This one phase of the two studies shows conclusively that the Wassermann test is not the all-round reliable test we have been taking it to be but that a more sensitive test must be used as a guide to determine when and where treatment should be considered adequate.

DR. SMITH, in closing:

I agree with Dr. Goldstein that the value of any laboratory procedure depends to a large extent upon the training and experience of the technician. This is particularly true of the Kline test. However, I wish to say that the simplicity of the technic and the stability of the Kline antigen gives the Kline test distinct advantages over many of the other serological tests for syphilis; and in the hands of laboratory workers by and large it will be possible to achieve a greater degree of standardization.

The results of this work show that the Kline test has distinct advantages over the Kolmer Wassermann and Kahn tests. However, it cannot be accepted as the ultimate serological diagnosis for syphilis because both the Kolmer Wassermann and Kahn test picked up cases of syphilis that were negative to the Kline reaction; but the accuracy of this test is unquestioned and its value has been proven in this work, and also many others. To my mind the Kline test has its place in the serological diagnosis of syphilis, and in doubtful cases the patient will not be receiving the full benefit of our serological knowledge unless the Kline test is made. I wish to thank Dr. Goldstein and Mr. Stewart for their discussion of this paper.

ARTHRITIS? MAYBE RHEUMATISM! TWO ARE SYNONYMOUS

Rheumatism or arthritis? There is no difference; the terms are synonymous. Not even in degree is there a difference.

The derivation of the word arthritis would indicate that it means inflammation of a joint (*arthron*, joint; *itis*, in the nature of, or inflammation of). Actually, arthritis is a term used to designate a constitutional disturbance that manifests itself by inflammation of the various bony and soft tissues which go to make up a joint or which lie over or close to a joint.

In nearly all instances arthritis is caused by a germ. The old theories of excess of red meat in the diet and uric acid as a cause are no longer countenanced; and such factors as dampness and exposure to cold, heredity and glandular disturbance, while extremely important as predisposing causes, are not really at the bottom of the trouble.

If the germ attacks the joints the disease is called arthritis; if the same germ attacks the muscle it produces myositis, of which lumbago is an example; if it attacks a nerve, neuritis results.

Hydrotherapy, physical therapy, gentle massage, heat, vaccines and various measures to increase the patient's resistance must be employed. A liberal diet is insisted on, particularly generous with reference to meat, fruit, eggs and milk. Dry, warm climates are distinctly helpful. Worry militates against the patient's recovery frequently and should be combated with proper measures. Dr. Maurice F. Lautman, Hot Springs National Park, Ark., discusses the causes of arthritis and suggests medical treatment in the February *Hygeia*.

The 58th Annual Session of
the Arkansas Medical Society
will be held
May 2, 3, 4, 1933
Hot Springs National Park

THE JOURNAL

OF THE

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WILLIAM R. BATHURST, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

ARKANSAS MEDICAL SOCIETY COMMITTEE ON MEDICAL LEGISLATION

It is the purpose of this committee to keep the profession informed from time to time as to the proposed legislation affecting the medical profession of this State. These bulletins will be forwarded to the Secretaries of the County Medical Societies, and others who might be interested, as frequently as it is deemed necessary to keep the members of the medical profession advised.

It is suggested that the secretaries of the County Societies get in touch with the membership and inform them of the matters we take up in these bulletins in order that the local doctors may discuss these matters with their Senators and Representatives when contacted.

In The House

House Bill No. 118 (Nyberg), having for its purpose the repeal of the law providing a tax of 25 cents per thousand on cigarettes (1-2 cent per package) for the purpose of paying off bonds which the trustees of the U. of A. were authorized to issue for building purposes. It was proposed that bonds in an amount of $1,000,000.00 be issued, to be divided $725,000.00 to the U. of A. at Fayetteville and $275,000.00 to the medical school at Little Rock. This bill is now before the Committee on Edueation.

Naturally we are very much interested in this bill since it cuts off the funds intended to build a medical school building in Little Rock. About 70 per cent of the doctors in Arkansas are graduates of this medical school and if this school is not maintained it will only be a matter of a few years until a dearth of doctors in this State will be effected.

House Bill No. 159 (Watkins), diverts the funds arising from the 1-2 cent cigarette tax, for University building purposes, to the common school fund. Committee on Edueation. (Act No. 18, 1931.)

Naturally we are against this bill for the same reason that we are against House Bill No. 118.

House Bill No. 242 (Reynolds), provides that all records of births and deaths shall be

on file with the State Registrar of vital statistics, and also with county clerks. "Committee on Public Health and Practice of Medicine."

We cannot see the occasion for such a law as this bill would provide. It would require double the amount of red-tape and the keeping of records of vital statistics, and if an error should be made in filling out one of these certificates it would be up to the doctor to go to the courthouse and correct the error on that copy also. Moreover, there is no provision to take care of the extra expenditure for postage. In short, it would increase the time, work and expense to the doctor and for no good reason, as we see it.

House Bill No. 173 (Lee), provides that the Board of Control of the U. of A., which now has supervision over the State Veterinarian, shall be transferred to the State Board of Health. (The Committee on Public Health recommended that the bill be postponed until a new bill could be introduced, providing for a board of live stock welfare.)

After all we are not particularly interested in this bill.

House Bill No. 200 (Murphy), defines "optometry," as "the employment of any method or means, other than the use of drugs, medicine or surgery, for the diagnosis of any optical defect, deficiency or deformity, or visual or muscular anomaly of the visual system, or the prescribing or the adoption or the duplication of lenses, prisms, or ocular exercises for the correction, relief, or aid of the visual functions," and prohibits peddlers from selling spectacles. The bill specifically excludes doctors from its provisions, so that doctors can continue to prescribe for defective vision. (Committee on Public Health and Practice of Medicine.)

This bill has been carefully studied by our legal adviser, Mr. Peter A. Deisch, as well as a group of eye, ear, nose and throat specialists, and since it has been found that it does not affect the medical profession in any way we offer no objections to its passage.

House Bill No. 326 (Smith of Pulaski), appropriates $15,000.00 from the 1-2 cent cigarette tax fund for the purchase of a building site for a medical school. "Budget Committee."

We heartily recommend the passage of this bill since it will mark the beginning of new physical properties for our medical school.

House Bill No. 362 (Crumpler), provides for a board of barber examiners to set up and enforce standards of barbering and sanitation. The bill was considered by the Committee on Public Health, postponed to give opportunity to the author to confer with a committee from this Society to see that proper safeguards were provided so as to prevent barbers from doing any minor surgical work, etc. (Committee on Public Health and Practice of Medicine.)

We will report on this measure when the joint committee will have reported its conclusions. As it stands now it is objectional to the medical profession because it allows barbers and beauty specialists to treat certain skin conditions which rightfully belong in the realm of the practice of medicine and surgery.

In The Senate

Senate Bill No. 168 (Shuster), limits all cigarette tax to 50 per cent of the amount charged under present law.

It is our opinion that the law may as well be repealed as to accept such a reduction.

Senate Bill No. 106 (Abington), provides that hereafter any student who is a graduate of an accredited high school, shall be entitled to enter any medical college wholly or in part supported from State funds. (Committee on Public Health and Practice of Medicine.)

If this bill were to become a law our medical school would be reduced from Class A to Class B. In other words, we would revert to the 1913 level of standards of education. The same author introduced the same bill in the Senate at the last session and we believe it will receive even less consideration at this session.

Senate Bill No. 142 (Abington), repeals Sections 8251 to 8262, C. & M. Digest, which contain all the law relating to optometry. (Committee on Public Health and Practice of Medicine.)

Apparently the author desires to do away with all law governing the practice of optometry. This would allow any individual, who desired to fit glasses, to set himself up as an optometrist. We are unalterably against this measure.

So far chiropractors, Christian Scientists, osteopaths and the other cults have not introduced any bills to further their ambitions. Our legal adviser, Mr. Deisch, and the chairman of your Legislative Committee scan the legislative calendar daily in order that we

may catch any legislation as quickly after it has been introduced as possible.

There have been several bills introdueed, with reference to dentistry and veterinary practice, that we do not feel are of any interest to the medieal profession, so have not taken any part in the battles coneerning those measures.

Fraternally,

Val Parmley,
Chairman Legislative Committee.

Editorial Clipping

ETHICS OF PUBLICITY

Principles Governing Contact of Physicians With the Public Through the Press, Lecture Platform, Lay Periodicals, and the Radio.

The present tendeneies in social and economic life have made it desirable that the medical profession, both as an aggregate body and through its individual members, should become more artieulate in its relation to the public.

However, this being something of a departure, it is neeessary that a working set of principles be formulated to guide physicians in their publie contact with the community, to the end that the best interests of the community be served and that ethics be not violated.

In considering the common avenues through which the profession and individual physicians may address the public, namely the press, the radio, the public platform and popular publications, we find three possible types of approach. These are publicity, propaganda, and publie health education.

Publieity we witness in the medical world under two aspeets. In one it gives due public notice of events which constitute legitimate news, such for example as the eleetion of new officers in a medical organization; the opening of a new hospital; the award of a prize for distinction in medicine and the like. Such publicity is legitimate and desirable, and the use of a physieian's name in this connection is not reprehensible.

There is, however, another form of publicity unfortunately employed by a small seetion of the medical world, which has for its aim the exploitation or advertisement of an individual through mention of his name in the public press.

In such publicity, the comings and goings of the individual are featured, his connections, achievements and honors are mentioned and he is thereby deliberately and often without any warrant given undue prominence in the public eye. This form of publicity is objectionable, because its aim is reprehensible and the effect upon the public and upon the profession will be deleterious. This type of publicity among physicians cannot be countenanced.

Propaganda has for its main objectives the arousing of public interest in supporting and acting on health matters.

In propaganda, emphasis is plaeed on some matter of public health interest and only incidentally upon the physieians connected with it. Tubereulosis prevention, eaneer eontrol, diphtheria prevention are legitimate publie health items for propaganda. The appearance of physieians' names in eonnection with sueh agitations is by the exigencies of press practices necessary and allowable.

Public health education differs from publicity and propaganda by the nature of its content. A statement, for example, that measles is a mueh neglected and dangerous disease, made by Dr. Jones, may serve as a typieal example of a public health education message. Such a statement should not give special prominence to its maker. On the other hand, the statement is given impressiveness and authoritativeness when emanating from a representative physician or from an offieial medical body. Such a physician speaks not for himself but for the profession. He serves merely as the mouthpiece through whieh is expressed a fact universally agreed upon by physicians.

Radio broadcasting presents a number of singular problems whieh need individnal consideration. It is highly desirable that the medical profession should take advantage of the opportunities for constructive propaganda and for health education presented by the radio. And yet the radio is a medium in which the personality of the speaker, understood in its widest implications, counts for much. Anonymity on the radio is, therefore, ineongruous. A physician making an address on the radio must of necessity be introduced by name. More than that, to establish his right to speak his standing or connections, educational or associational, must be given.

All of these requirements can be fulfilled without violence to good taste or ethical procedure. The speaker's name may be given by the announcer without adorning and superlative references to his abilities or achievements. Dr. John Jones, clinical professor of medicine at the X. Y. Z. University, will suffice as an introduction. Dr. John Jones, who is a practicing physician, should not be introdueed as an internationally famous authority, etc.

In the body of the radio paper, referenees to the person of the speaker, his singular achievements, unique and outstanding practices, should be kept down to an absolute minimum. In theory, the physician speaking on the radio is the vocal representative of the medieal profession addressing the public. He brings to the public the fruits of many men's labors. In this, he is the custodian and administrator of the wealth accumulated by the scientific endeavors of the profession. His personal interests, and individual convictions must be placed secondary to the interests and dominant convictions of the profession. There are proper channels provided for the advancement of a physician's medical ideas.

It is desirable that talks over the radio by physieians should be given under the auspiees of the designated committees of the New York Academy of Medicine and of the Medical Society of the County of New York.*

Commercial organizations may purchase time "on the air" with increasing frequency in order to procure good will, and use it for broadcasting public health information. Frequently, physicians are employed to compose and deliver such broadcasts.

Provided that the commercial organization is of reputable standing, there is no objection to physicians accepting such employment. A physician must not, however, make his address an endorsement or testimonial for the product or products of the organization on whose time the broadcast is given.

In order to safeguard himself and the profession, when such employment is offered him, a physician should confer with the Medical Information Bureau, both as to the standing of the commercial organization with which he is to make a connection and the contents of the paper or papers he proposes to broadcast.

It is also important that the announcer's continuity should be acceptable. No exaggerated or unwarranted claims should be allowed, nor should the announcer be permitted to imply that the speaker endorses the commercial organization or its product.

Magazines and periodicals: Artieles written by physicians for magazines on medical topics affecting the profession should be subject to pre-publieation review by the local medical organization.

Summary: The full intent of these considerations is to facilitate and in no way to hamper educational contact of the profession with the public. They are designed to encourage the expression of the views of the profession to the public. They provide against objectionable publicity by self-seeking individuals whose only design is to aggrandize their persons beyond all merit.

They are formulated for the protection of the public, and for the advancement of the basic interest of the profession by whose progress or regression we all are fundamentally affected.—*Delaware State Med. Jour.*

*The Medical Information Bureau. (In Wilmington: The Public Relations Committee.)

Personal and News Items

We regret to announce the death of Mrs. Sarah M. Hesterly, wife of Dr. S. J. Hesterly of Preseott, January 26, 1933.

Dr. E. H. White, Secretary, Pulaski County Medical Society, reported 151 members for 1932 against 152 for 1931. Congratulations, Harl!

Dr. C. W. Smith of Houston, Arkansas, was named physician for the Arkansas Confederate Home, February 8, by the Board of Control of the institution.

Dr. Oliver C. Melson of Little Rock was made a member of the Board of Governors of the American College of Physicians at their meeting, February 9, 1933, at Montreal, Can.

Dr. L. J. Kosminsky of Texarkana, President-elect of the Arkansas Medical Society, was elected Vice-President, Missouri Pacific Surgeons' Association, at their recent meeting in Kansas City.

The Johnson County Medical Society elected the following officers for 1933: Presi-

dent, G. R. Seigel, Clarksville; president-elect, Geo. L. Hardgraves, Clarksville; secretary-treasurer, Earle H. Hunt, Clarksville (re-elected).

Officers of the Dallas County Medical Society for 1933 are: President, H. A. Cheatham, Princeton; vice-president, W. P. Ward, Fordyce; secretary-treasurer, J. E. M. Taylor, Sparkman; delegate to the meeting of the Arkansas Medical Society, E. E. Estes, Fordyce; alternate, H. A. Cheatham, Princeton.

The White County Medical Society reported the following officers elected for 1933: President, A. H. Hudgins, Searcy; vice-president, T. E. Johnson; secretary-treasurer, Orlie Parker, Searcy; delegate, Sam J. Allbright, Searcy; alternate, Porter R. Rodgers, Searcy.

Three new appointments to the State Board of Health made by Governor Futrell, and one made by former Governor Parnell were confirmed by the Senate, January 27, 1933. The Parnell appointee retained by Governor Futrell is Dr. F. O. Mahony of El Dorado, whose term expires in 1936. The new members are Dr. W. G. Hodges of Malvern, Dr. W. F. Smith of Little Rock, and Dr. Thomas Wilson of Wynne. All three were named for terms expiring in December, 1937.

The forty-ninth annual session of the Mid-South Post-Graduate Medical Assembly met February 14, 15, 16 and 17, 1933, in Memphis, Tennessee. Officers presiding at this session were: Dr. L. H. McDaniel, Tyronza, Arkansas, president; Dr. A. G. Harrison, Searcy, Arkansas, vice-president; Dr. F. M. Acree, Greenville, Mississippi, vice-president; Dr. J. W. Oursler, Humboldt, Tennessee, vice-president; Dr. A. F. Cooper, Memphis, Tennessee, secretary-treasurer.

The American Board of Obstetrics and Gynecology proposes to hold the first of a series of annual dinners for diplomats of the board and their friends on the first day of the Scientific Session of the American Medical Association meeting in Milwaukee, at which time the successful candidates from the examination of the day before will be introduced in person, one or more addresses will be made by officers of the board and a Round Table Conference and general discussion of the activities of the board will follow. Diplomats expecting to be in attendance at the Scientific Session of the American Medical Association are urged to make reservation for this subscription dinner as early as possible through the office of the secretary of this board. Further announcements will be made through the Journal of the American Medical Association and the American Journal of Obstetrics and Gynecology.

The next written examination and review of case histories will be held in cities throughout this country and Canada, where there are diplomats who may be empowered to conduct the examination, on April 1, 1933.

The next general, clinical examination is to be held in Milwaukee on Tuesday, June 13, 1933, immediately preceding the annual session of the American Medical Association. Reduced railroad rates will apply.

For further information and application blanks, address the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania.

PRINCIPLES AND POLICIES OF ORGANIZED MEDICINE

William Allen Pusey, M. D.
Chicago, Ill.

(Presented at the Annual Conference of State Society Secretaries and Editors in Chicago, November 18, 1932)

Principles

(1) Medicine is the trustee of society in the care of the sick and injured; its policies must always be governed by this fundamental fact.

(2) The good of society must be the sole aim of its public policies and the good of the patient the first consideration in the relations between physicians and patients.

(3) Medicine's first responsibility must be to see that its services are available to all men.

(4) The public interest demands the most competent medical profession possible. Medicine must be an attractive profession to compete successfully with other professions for the ablest young men.

(5) In the sense that every calling from which a living must be gained is a business, medicine is a business; it must accept the competitive conditions of practical life but, as a

profession of high ideals, it must seek to prevent selfish commercialism.

(6) Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically diagnosed and treated by a competent individual general practitioner.

Responsibilities

(7) The services of medicine include (a) the practice of medicine; (b) the promotion of preventive medicine and the public health; (c) the fostering of research and the increase of knowledge.

(8) Medicine's chief concern must be for the individual physician; the service rendered by individual physicians in the aggregate constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physicians who give it.

Rights

(9) The medical profession asks for its practitioners: freedom of opportunity to develop to the limit of their individual capacities.

(10) It asks a career of independence under conditions of free and dignified competition.

(11) It asks remuneration sufficient for reasonable comfort for the individual and for his family.

(12) In its ideals of independence, medicine has a right to control its own affairs. Its history of capacity and altruism justifies this claim.

RESOLUTION ADOPTED BY THE PULASKI COUNTY MEDICAL SOCIETY

Little Rock, Ark., January 21, 1933.

Whereas, On December 30, 1932, Dr. James H. Lenow of Little Rock, Arkansas, formerly President of the Arkansas Medical Society and Dean of the School of Medicine, University of Arkansas, and a prominent physician for sixty years, was claimed by death.

Therefore be it Resolved, That we offer to his family the sympathy of the society in their bereavement. With the assurance that we hold in affectionate remembrance the recollection of his active and long life among us, his devotion to the School of Medicine and his active participation in all affairs of the State Medical Society and in the advancement of medicine.

Dr. Frank Vinsonhaler
Dr. S. B. Hinkle
Dr. H. Dishongh.

OFFICERS OF THE WOMAN'S AUXILIARY TO THE ARKANSAS MEDICAL SOCIETY

President, Mrs. P. H. Phillips, Ashdown.

President-Elect, Mrs. B. A. Rhinehart, Little Rock.

Vice-President, Mrs. William Hibbits, Texarkana.

Secretary, Mrs. L. H. Lanier, Texarkana.

Publicity Secretary, Mrs. Curtis Jones, Benton.

Treasurer, Mrs. H. King Wade, Hot Springs.

Parliamentarian, Mrs. H. H. Smith, Fort Smith.

Historian, Mrs. C. W. Garrison, Little Rock.

Auxiliary Notes

The Woman's Auxiliary to the Garland County Medical Society held its January meeting with Mrs. J. D. Fife, at her home at the Army and Navy General Hospital, with a splendid attendance. Eleven persons are being given milk from the fund for tuberculous patients. Fifteen dollars has been given to the Student Loan Fund, and each member pledged to entertain some friends, preferably outside the auxiliary, for the price of a dollar which will be turned into the auxiliary fund. Mrs. M. G. Thompson was selected to compile the history of the Woman's Auxiliary. Miss Nelda King gave an interesting and instructive talk on "Underwater Therapeutics," saying many had received permanent relief from such treatment in the city.

Mrs. J. Palmer Sheppard was hostess to the January meeting of the Woman's Auxiliary to the Pulaski County Medical Society. Mrs. W. P. McDermott, county probation officer, as guest speaker, talked on the "Outstanding Women in the Country." Mrs. M. D. Holmes, chairman, Education and Public Health, reported that a six months' subscription to Hygeia, had been given to each of the grammar schools in the city.

Communications

(Sent to President or Executive Officer of Colleges of Arts and Sciences and Junior Colleges, Approved by the American Medical Association.)—February, 1933.

There is being widely distributed an announcement of the Illinois College of Physicians and Surgeons, 20 North Ashland Boulevard, Chicago, which includes the following statement:

"Courses offered and requirements for graduation are class 'A' requirements."

Inasmuch as the Council on Medical Education and Hospitals of the American Medical Association is the only body which has ever rated medical schools as class "A," it is clearly implied that the above named school conforms to the standards prescribed by this council. Such an inference, however, is wholly unwarranted. The above institution is conducted by a group of chiropractors and does not even remotely approach the standards of a class "A" medical school.

You are apprized of these facts in order that you may be able intelligently to advise those of your students who may be about to choose medicine as a career.

Very truly yours,

Council On Medical Education and Hospitals
William D. Cutter.

Obituary

HARTSELL, WILLIAM L.—Dr. W. L. Hartsell of Warren, died February 4, 1933. He was graduated from Baylor University in 1895 and began practicing medicine in Cleveland and Bradley counties, moving to Warren about twenty years ago. He was president of the Bradley County Medical Society in 1931 and 1932.

He is survived by his wife and a brother, E. C. Hartsell of Pine Bluff.

WILKES, ELBERT HAYS—Dr. E. H. Wilkes of Little Rock, aged 54, died January 25, 1933. He was born in Medison County, Tennessee, and received his first schooling in Mercer, Tenn., moving with his family to Des Arc, Arkansas, in 1890.

Dr. Wilkes received his degree in medicine from the University of Arkansas in 1909. He married Miss Bessie Lee Matthews in Des Arc in 1910, and moved to Crossett, where he practiced medicine for six years. He then moved to Little Rock where he had since lived.

He is survived by his wife; a daughter, Miss Nell Wilkes; a son, Elbert H. Wilkes, Jr.; a sister, Mrs. A. L. Crume, all of Little Rock, and a brother, W. N. Wilkes of McCrory.

DORR, ROBINSON C.—Dr. R. C. Dorr of Batesville, aged 74, died January 29, 1933. He was born at Richland, Iowa. He received the degree of doctor of medicine from Washington University, St. Louis, and took postgraduate work in St. Louis and Chicago, and in clinics in this country and in Europe. He began the practice of his profession in Independence County, Arkansas, fifty years ago, and continued until failing health caused him to retire about a year ago.

Dr. Dorr was one of the first three surgeons of Arkansas to be elected to the American College of Surgeons. He was a former vice-president of the Southern Medical Association, and president of the Arkansas Medical Society, 1910-1911.

He is survived by his widow; one son, Claude Dorr, and one daughter, Dorothy Dorr, and a sister, Miss Grace Dorr.

MARCH, CLAIBORNE JACKSON—Dr. C. J. March of Fordyce, aged 79, died January 11, 1933. He had practiced medicine in Fordyce from 1889 until a few years ago when he became medical examiner-in-chief for Home Insurance Company. He was at one time president of the State Board of Medical Examiners, and for many years was surgeon for the Cotton Belt Railroad. He was county health examiner, and during the World War served as examiner on the local Draft Board.

Dr. March is survived by his wife and one daughter, Mrs. L. W. Amis of Arkadelphia.

LINDSEY, JAMES H.—Dr. J. H. Lindsey of Bentonville, aged 70, died February 2, 1933. He was born near Marshall, Searcy County, graduated from the University of Arkansas, School of Medicine, in 1884, and practiced medicine in Marshall and Mountain Home until he moved to Bentonville in 1898. He was interested in the development of Benton County dairying and one of the organizers

of the Northwest Arkansas Guernsey Cattle Association. He was senior member of the firm of Lindsey and Pickens, the other member being his son-in-law, Dr. William A. Pickens.

He is survived by his wife, a daughter, Mrs. William A. Pickens; a sister, Mrs. Martha J. Parks, and three grandchildren.

County Societies

CLAY COUNTY

(Reported by J. E. McGuire, Sec.)

The Clay County Medical Society held its regular monthly meeting in Piggott, January 10. A very interesting program was rendered, Dr. J. H. Lamb of Paragould being the guest speaker. He read a paper on "Tetanus." Dr. J. P. Hiller and Dr. F. H. Jones led in the discussion.

At the conclusion of the scientific program, an election of officers was held, with the following results: President, F. H. Jones, Piggott; vice-president, J. P. Hiller, Pollard; secretary-treasurer, J. E. McGuire, Piggott.

Visiting physicians were: W. O. Parrish and W. J. Blackwood, Rector; J. H. Lamb, Paragould; E. W. Thornton, Piggott.

Members of the Piggott bar were invited, the following being present: Judge A. G. Ward, Attorney A. Sneed, Attorney T. A. French and Attorneys W. T. and Gladys Adams. Rev. W. E. Chadwick and Rev. B. L. Wilford also were invited guests.

The next meeting will be held in Piggott, February 14, 1933.

FRANKLIN COUNTY

(Reported by Dr. Thos. Douglass, Sec.)

The Franklin County Medical Society held its annual meeting for 1932 at the Bristow Hotel in Ozark, December 16. A dinner and election of officers featured the meeting.

Members present: W. H. Bollinger, W. F. Akin, J. L. Post, E. W. Blackburn, W. C. Porter, W. H. Gibbons and Thos. Douglass. Guests were: Drs. C. S. Holt, F. H. Krock, A. F. Hoge, M. E. Foster, E. C. Moulton, Walter Eberle, S. J. Wolfermann, and W. R. Brooksher, Jr., Fort Smith; W. R. Hunt, Earle H. Hunt, and A. R. Boen, Clarksville; S. C. Grant, Mulberry; Homer L. Clark, dentist of Ozark. Miss Mabel Gibbons and Mrs. John Bryan, Jr., furnished music.

Officers elected were: President, W. H. Bollinger, Charleston; vice-president, W. H. Gibbons, Ozark; secretary-treasurer, Thos. Douglass, Ozark.

The scientific program was supplied by the Cooper Clinic and the Holt Clinic of Fort Smith. Dr. M. E. Foster read a paper on "Pyelitis," with lantern pictures; Dr. Fred Krock one one "Tragedies of Surgery," and Dr. Chas. S. Holt, "Surgical Experience." Discussions were by Drs. W. R. Brooksher, Jr., and S. J. Wolfermann.

An interesting feature of the program was a quiz on Anatomy, by the new president, Dr. Bollinger, on which the general average grade made was about 7 1/2 per cent—as Dr. Brooksher, Jr., remarked.

MISSISSIPPI COUNTY

(Reported by F. D. Smith, Sec.)

The Mississippi County Medical Society held its February meeting at the Blytheville Hospital, at 8:00 p. m., February 7, 1933.

Those present were: Tipton, Tidwell, Saliba, Grimmett, Husbands, Washburn, I. R. Johnson, Hudson and Smith.

Dr. H. A. Taylor, dentist, of Blytheville read a paper entitled "Dental Radiography." The paper was very interesting for the physician as well as the dentist.

The society passed a resolution making the dentist of the county honorary members, providing they are members of the dental society.

The next meeting will be held in Oseeola the first Tuesday in March.

OUACHITA COUNTY

(Reported by R. B. Robins, Sec.)

The Ouachita County Medical Society held its annual ladies' night meeting Thursday night, February 2nd, at 7:00 p. m., at the Orlando Hotel in Camden. After a delightful banquet and musical entertainment the doctors and their wives were entertained by the following program:

"The Country Doctor"—Dr. J. P. Clemens, Mt. Holly, Ark.

Address—Mrs. P. H. Phillips, President Woman's Auxiliary, Arkansas Medical Society.

"The Present Trend in the Practice of Medicine"—Dr. L. J. Kosminsky, President-elect, Arkansas Medical Society.

PHILLIPS COUNTY

(Reported by M. Fink, Sec.)

The Mississippi County Medical Society held its annual meeting in Helena, which meeting marked the 62nd anniversary of the organization.

Officers for the ensuing year were elected as follows: President, M. Fink, Helena; vice-president, J. W. Butts, Helena; secretary-treasurer, George R. Storm, West Helena; censor, H. H. Rightor, Helena; delegate to the State Society meeting, J. B. Ellis, Helena. Dr. Morriss Henry and Dr. J. W. Nicholls were elected members of the Helena Hospital governing board.

Among those present were: Rightor, Orr, Butts, Henry, King, Storm, Nicholls, Fink, and Aris Cox.

The next meeting will be held at the Helena Hospital.

SEBASTIAN COUNTY

(Reported by Jas. W. Amis, Sec.)

The annual banquet of the Sebastian County Medical Society was held on the evening of January 10, in the Goldman Hotel.

At this time the new officers were installed, as follows: President, S. J. Wolfermann; vice-president, H. H. Smith; secretary, J. W. Amis; treasurer, W. R. Brooksher.

Following the banquet, a program devoted to the amusing side of life was presented. One of the most interesting features of the program was a pantomime by Dr. W. G. Eberle in which he mimicked the operating characteristics of the various surgeons of the society.

Book Reviews

The History of Dermatology. By Wm. Allen Pusey, A. M., M. D., LL.D., Professor of Dermatology Emeritus, University of Illinois. Sometime President of the American Dermatological Association and of the American Medical Association. Illustrated. Publisher, Charles C. Thomas, 220 East Monroe Street, Springfield, Illinois. Price, $3.00 postpaid.

This volume represents the first book on the history of dermatology in English, and for that reason alone the medical profession, particularly dermatologist, are indebted to Dr. Pusey in presenting this valuable and interesting information.

The contents are as follows: Early Ancient Dermatology, Egypt to Greece, 3000 B. C. to 300 B. C.; Graeco-Roman, Arabian and Medieval Dermatology, Rome to the Renaissance, 300 B. C. to 1500 A. D.; Dermatology in Early Modern Europe, 1500 to 1750; Dermatology, 800 to 1850; Threshold of Threshold of Modern Dermatology, Clinical Dermatology, 1800 to 1850. Threshold of Modern Dermatology, Laboratory Dermatology, 1800 to 1850; Modern Dermatology, First Phase, Continental Europe, 1850 to 1900; Modern Dermatology, First Phase, Great Britain and the United States, 1850 to 1900; Modern Dermatology, Present Phase, Since 1890; Historical Index of Dermatology.

Health Protection for the Preschool Child. A National Survey of the Use of Preventive Medical and Dental Service for Children Under Six. Report to the Section on Medical Service. George Truman Palmer, Dr., P. H., Chairman, Subcommittee on Statistics. Mahew Derryberry, Research Assistant. Philip Van Ingen, M. D., Chairman, Committee on Medical Care of Children. White House Conference on Child Health and Protection. Published by The Century Co., New York. Price, $2.50.

This report of the White House Conference on Child Health and Protection undertakes to answer the question: To what extent is the health of the children in the United States who are the nucleus of the next generation being protected? The report is based on house to house inquiries made by representatives of nearly a thousand different local organizations, reaching 146,000 children in three-fourths of all cities of over 50,000 population and 37,000 children living in the rural areas of 42 States. The result is the most complete and graphic picture of how preventive medical and dental services are being applied to the preschool child which has yet been presented. The book is an invaluable addition to the literature of the preschool child. It includes an introductory statement regarding the present status of preventive medical and dental measures, a discussion of the findings of the survey, a series of reference tables showing in detail the survey findings in each area studied, and a discussion and explanation of the administration of the survey and the computation of the data collected.

Body Mechanics: Education and Practice. Report of the Subcommittee on Orthopedics and Body Mechanics. Robert B. Osgood, M. D., Chairman. White House Conference on Child Health and Protection. Published by The Century Company, New York. Price, $1.50.

This is a report of a searching investigation made for the White House Conference on Child Health and Protection into the relation of body mechanics and posture to the health and well-being of children.

Body mechanics is defined by the subcommittee which conducted the investigation as "the mechanical correlation of the various systems of the body with special reference to the skeletal, muscular, and visceral systems."

"There is positive evidence," the report says, "to prove that not less than two-thirds of the young children of the United States exhibit faulty body mechanics," and that this condition is likely to continue into adult life. The evidence gathered shows that improvement in body mechanics is associated with improvement in health and efficiency.

An important distinction is made in the report between training in the principles of good body mechanics and training in various physical exercises.

The detailed recommedations and the suggested program of corrective exercises presented here will be of value to all those concerned with the care and training of children.

Psychology and Psychiatry in Pediatrics: The Problem. Report of the Subcommittee on Psychology and Psychiatry. Bronson Crothers, M. D., Chairman. White House Conference on Child Health and Protection. Published by The Century Co., New York. Price, $1.50.

This report, just published in the series of books sponsored by the White House Conference on Child Health and Protection, considers the important question, Should the medical practitioner attempt to give advice when difficulties threaten the satisfactory development of personality in a child under his care? The report is a challenge to pediatricians and family doctors.

Although the report does not urge all doctors to attempt to become expert in the fields of psychology and psychiatry, it states the opinion that adequate physical care of the child cannot be given without attention to whatever intellectual and emotional difficulties may be present, and concludes that when trouble arises and the individual child is in distress a well-informed and alert physician is the obvious adviser. "Unwillingness of doctors at large to acquire the ability to deal wisely with problems involving personality of the child," says the report, "may lead to transfer of this field to formal organizations or to individuals without medical experience. Such a solution will inevitably diminish both prestige of the private practitioner of medicine and the interest of his job."

LOCAL COMMITTEES OF GARLAND COUNTY—HOT SPRINGS MEDICAL SOCIETY FOR THE MEETING MAY 2, 3, 4, OF THE STATE MEDICAL SOCIETY

General Chairman: G. E. Tarkington.

Reception: O. E. Biggs, Chairman; G. B. Fletcher, J. A. Chesnutt, J. M. Proctor, A. H. Tribble.

Publicity: L. R. Ellis, Chairman; J. R. Randolph.

Finance: S. D. Weil, Chairman; O. H. King, J. S. Stell, E. M. McKenzie, G. A. Hebert.

Meeting Places: W. V. Laws, Chairman; G. Eckel, T. E. Sanders.

Scientific Exhibits: A. G. Sullivan, Chairman: F. J. Scully, E. A. Purdum.

Information: H. Preston, Chairman; W. Blackshare, W. G. Klugh, F. Jarrell.

Transportation: O. J. MacLaughlin, Chairman; M. F. Lautman, H. Brewer, H. O. Lynch.

Golf: T. N. Black, Chairman; C. Garratt, C. H. Nims, C. S. Moss.

Commercial Exhibits: H. K. Wade, Chairman; L. G. Martin, H. Preston.

Entertainment: G. E. Tarkington, Chairman; F. S. Tarleton, C. H. Lutterloh, O. E. Wenger.

Badges: G. A. Hebert, Chairman; D. B. Stough, D. C. Lee.

Ladies' Entertainment: W. T. Wooton.

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Original Articles

THE ATTITUDE OF THE AMERICAN MEDICAL ASSOCIATION TOWARD SOCIALISM, INDUSTRIALISM AND INSURANCE COMMERCIALISM IN MEDICINE

SEARLE HARRIS, M. D.
Professor Emeritus of Medicine, University of Alabama, Birmingham

A stunning blow to the art and science of medicine and to efficient medical service for the public was struck by the highly publicized report of the majority of the Committee on the Cost of Medical Care when they recommended "a basic change in the system of providing medical care for the people of the United States." Their plan consists in the organization of groups of physicians, dentists, nurses and pharmacists to provide community medical centers, to charge "from $20.00 to $40.00 per capita per annum, which equals 40 to 50 per cent per week" for medical and surgical service. "These centers," the report said, "would provide complete medical services for weekly or monthly fees, with when necessary, some supplementary support from tax funds. Professional procedures would be under the control of the physician, dentists, and other practitioners, and financial responsibility would rest with a board representing the public."

The majority report further recommends that "the cost for community health service be placed on a group payment basis through the use of insurance, through the use of taxation or through the use of both of these methods." In other words the majority report recommends that the practice of medicine should be controlled by insurance companies and politicians; and that doctors be employed for wages, or meager salaries, just as insurance agents and wardens of penitentiaries are hired; and if per chance the doctor displeases a voter, or does not keep expenses down for the insurance company, he may be fired, and a better politician or a cheaper doctor put in his place. Then he would be left without the opportunity to earn a support for himself and family by his profession.

No doubt Chairman Wilbur, the practicing physicians, public health officials, sociologists, economists and other laymen, who signed the majority report are sincere in their opinion that socialized medicine is not only inevitable but best; and that the "wheels of progress will grind on" regardless as to whether or not they crush the initiative and independence out of the medical profession. The idea of cheap medical service in this period of depression, appeals to laymen who are not familiar with medical procedure, and therefore, do not know when they are receiving the best medical attention. The dissatisfaction on the part of the public with our present system of medical practice is not so much the fault of physicians as it is that when a man on small salary, or a member of his family, is ill, he demands a choice hospital room, special nurses and other hospital luxuries when he may not be able to pay for more than the necessities demanded in giving him all the medical service required in his case.

It is but fair to say that there are many admirable suggestions in the majority report that should be considered, and some of them adopted by the medical profession, particularly those relating to the prevention of disease; but the quasi state medicine recommended will not be taken seriously by enlightened physicians who are informed of the low standards of practice by the medical profession, and the dissatisfaction of the supposed beneficiaries of governmental medical control as it exists in England, Germany, Austria and Russia.

THE MINORITY REPORT OF THE COMMITTEE ON THE COST OF MEDICAL CARE

Fortunately for safeguarding the public from the most inefficient form of medical practice, and for the maintenance of the lofty

ideals and high standards of practice by the medical profession, a minority of the Committee on the Cost of Medical Care had the wisdom and the courage to submit a report signed by nine physicians, and submitted by an eminent practitioner of medicine, Dr. Nathan B. Van Etten of New York. The minority report made seven recommendations, one of which in the following sentence effectively disposes of the majority report: "That the corporate (*i. e.* community center or other organized) practice of medicine be vigorously and persistently opposed as wasteful, inimical to high quality, or productive of unfair exploitation, of the medical profession."

It also is fortunate for a gullible public, and for the thinking and far-sighted members of the medical profession, as well as for the doctors who see only the advantage of a regular monthly income however small it may be, that the officials of the American Medical Association will unanimously support the minority report which stands for individualism in medicine, and unqualifiedly oppose the plan of the majority which would destroy medical independence. Every American physician should read the editorials and comments on the committee's report in the December third and December tenth numbers of the Journal of the American Medical Association, as he should also read the complete majority and minority reports of the Committee on the Cost of Medical Care; and resolve to do his full share in giving the public the best possible medical service, making his fees commensurate with the service rendered and the ability of the patient to pay, and at the same time make his influence felt in his county, state and national medical organizations for strengthening and enforcing medical ordinances which oppose unfair competition and low standards of medical practice.

It is hoped that the American Medical Association at the Milwaukee meeting will outlaw the kind of practice recommended by the majority report, while at the same time giving assurance to the public that the progressive medical profession of the United States will see to it that adequate medical care will be given to all classes; the indigent, with the charity that the medical profession has always gladly and freely given to the poor; those of moderate means, who should not be required to pay more than they can afford for the care of their loved ones when sick; and the rich, who can pay and who should be charged reasonable fees for medical care.

The A. M. A. Symposium on Contract Practice

The Annual Conference of Secretaries of Constituent State Medical Associations of the American Medical Association held in Chicago, November 18-19, of last year was devoted to the discussion of contract practice. The complete report of the meeting as published in the December Bulletin, the Official Journal of the House of Delegates of the American Medical Association, makes very interesting reading, particularly since those who participated in the meeting seem to express the attitude of the American Medical Association towards contract practice. Dr. William Allen Pusey, a former president of the American Medical Association, in discussing "The Principles and Policies of the Medical Profession in Its Public Relations," said of "corporate practice":

"Corporate practice controlled by lay business has in exaggerated form the disadvantages of group practice. It has other disadvantages of an entirely different sort and of much greater importance. These grave disadvantages have to do with the fact that they prevent the free choice of physicians, interfere with unrestrained relation between physician and patient, and make the physician an employee, subject to the influence, and often the control, of those above him who employ him. Corporate practice can be justified only under conditions where expedients must be accepted, even though in conflict with sound principles. Some situations of this sort are as follows: Where an individual or a corporation is legally or otherwise responsible for the present or the future physical condition of the patients; where without the furnishing of the physician by a corporation medical service would not be available to a group or a community."

Dr. G. E. Follansbee, Chairman of the Judicial Council of the American Medical Association, in a paper entitled "Contract Practice—The Octopus in Medicine," was emphatic in expressing his disapproval of contract practice. He said:

"A little thought will convince one that should contract practice become the accepted method of furnishing medical care in those communities suitable to its development, other

disastrous effects on the practice and the profession of medicine will occur. Competition on an economic basis will gradually lower the income of the profession until worry over finances will take the place of recreation, study and scientific progress. His enthusiasm lost, the doctor will degenerate into a pill peddler. The idealism of the profession of medicine will fade away, for the character of the profession at large is but the sum of the characters of the individuals practicing it. The door will be closed to the beginner in medicine except as vacancies occur in the groups holding contracts, when room may possibly be found at the bottom of the salary schedule. Advancement financial or professional will be slow, for competition compels restrictions on expenses, and vacancies ahead of the beginner will be few because the loss of opportunity for individual competition will bind each employee tightly to the job he holds. The profession of medicine will then lose its attractiveness to high grade men, and the octopus, contract practice, will have wrapped its strangling arms about medicine, the greatest of all professions."

"Advocates of the contract system see only the apparent benefit to people in a lowering of cost because of concentration of practice into groups which can handle a large volume. Some are blind to the ultimate result. Some are not blind but see that such abuses will arise under this system as will force medical care into a function of the State in order to control the quality of service. To such advocates of contract practice it is only a speedy and easy step to their ultimate objective of medical practice by the State or under its auspices."

Dr. R. G. Leland, who recently contributed a series of articles on "New Forms of Medical Practice" to the Journal of the American Medical Association, in an article on "Some Dangers of Contract Practice," said:

"Whereas early contract practice was, for the most part, conducted in places remote from populous centers with easily accessible medical facilities, the present contract practice schemes thrive largely in the urban centers where there is no dearth of other means of providing medical care. Formerly, most contract practice was legitimate and designed to meet humanitarian necessity for which provision could not be made otherwise. Lacking the same motive for contract practice when carried into the midst of communities with sufficient medical facilities, the promoters have today, with few exceptions, embraced commercial motives as their chief defense for the system."

"These newer types of medical practice not only limit free choice of physicians but also create groups, cliques and dangerous dissensions within medical organizations. Contract bargaining, solicitation, misrepresentation and underbidding have resulted in unfair competition among physicians in some sections. Moreover, some of these schemes have been organized and are being operated in direct opposition to, and defiance of, the established principles of ethics of the American Medical Association."

"During the periods of economic stress when their incomes are greatly reduced, many physicians grasp at straws for financial assistance. These physicians may adopt contract practice, believing that these schemes offer them a way out of financial troubles. In some sections of the United States, these schemes, developed along commercial lines, have set up a system of competitive commercialism which makes it almost impossible for the private individual practitioner and the recent graduate to make a living."

Dr. D. A. MacGregor, in discussing "Contract Practice in West Virginia listed the "good features" and "evil features" of contract practice in his State. The following are some of his conclusions:

1. "The welfare of the sick is the prime consideration in any commendable form of medical practice."

2. "In so far as is practicable, the patient should have freedom of choice in the selection of his physician and hospital."

3. "The quality of medical service should not be jeopardized by either inadequate compensation or an excessive number of patients."

4. "Solicitation of patients is reprehensible. It is undignified. It places the practice of medicine on a commercial rather than an ethical basis. It introduces a form of unfair competition between physicians."

The discussion of the papers by Drs. Pusey, Follanshee, Leland and MacGregor is most enlightening and was participated in by Dr. F. C. Warnshuis, Chairman of the House of Delegates of the American Medical Association; Dr. W. C. Woodward, Director of the

Bureau of Legal Medicine and Legislation; Dr. Morris Fishbein, Editor of the Journal of the American Medical Association; Dr. Olin West, Secretary-Manager, and Dr. E. H. Cary, President of the American Medical Association; and a number of secretaries of various State medical associations.

Commercialized Health Insurance

There have been many rumors that insurance companies expect to send their "high powered" agents out to sell health insurance, which provides medical care to their policyholders by physicians whom they will employ in each town and city in the country, and in hospitals which the insurance companies designate, or will own. The discussions by Dr. Woodward and Dr. West probably express the attitude of the medical profession generally toward this form of medical practice. Dr. Woodward said:

"If the representative of any insurance company says that it is waiting on the American Medical Association or for any other body to propose a plan for health insurance, he is talking nonsense. If he means that it is waiting for the American Medical Association or for some other body to suggest some plan whereby the insurance company will furnish directly to its policyholders medical service, nursing and hospital service, all well and good. I can believe that that idea may be in the mind of some such company. But there is no reason today why an insurance company should not engage in the business of health insurance, exactly as it engages in the business of life insurance, provided its charter permits—and probably the charters of most of life insurance companies do permit. By that I mean that there is no reason why an insurance company whose charter permits it to write health insurance should not regularly collect premiums, and when a person is sick pay cash to the beneficiary to enable that beneficiary to pay his hospital and other bills. Many of them are doing that now. They are not waiting on the American Medical Association for anything, unless it is for the sanctioning of some plan whereby the company will employ its own physicians and its own nurses and establish its own hospitals, and give medical nursing and hospital service direct to the beneficiaries of its policies. That, of course, is not necessarily or ordinarily a part of health insurance."

The courageous attitude of Dr. Olin West regarding the practice of medicine by insurance companies is expressed in one paragraph of his discussion. He said:

"Something has been said about insurance companies and how we ought to 'contact' the insurance companies. We are perfectly willing to 'contact' them; we have 'contacted' them. But in most instances the 'contacts' have ended, for the time being at least, when it has developed that the medical service to be delivered under their policies is to be altogether subject to the choice and direction of the companies. There are few exceptions to this rule. In so far as I am concerned, I am not willing, with the interest of the public in mind and with the interest of scientific medicine in mind, to turn over the practice of medicine to an insurance company or to any other corporation. I am not willing to turn it over to anybody except the medical profession, and unless the mandate comes from the organized medical profession, when it has been convinced that socialization is best, I will oppose any movement designed to socialize medicine and to subject the practice of medicine to political domination."

If the organized medical profession of the United States has the vision and the courage to face the insurance proposition squarely before too many of its members have contracted with insurance companies to provide medical care for their policyholders, it will be saved from vassalage to commercial institutions. If we sit down and wait for the "other fellow" to do something about it health insurance which will pauperize a large proportion of the doctors in every community in the nation, will become so established that it will not be possible to break its strangle hold on the public; and sooner or later the States, or the national government, will take over health insurance as Germany, Austria, Russia and England have done. "An ounce of prevention is worth a pound of cure" in dealing with the sinister influences both inside and outside the medical profession.

Health insurance is highly desirable when it pays the policyholder a stipulated amount of money each week during illness or disability from accidents, thus allowing the individual to select his physician and his hospital; but the health insurance which intends for its beneficiaries to receive medical attention by company physicians, in subsidized hospitals,

is a menace to the public, because it will provide inefficient medical service, and it endangers medical initiative and medical independence because by that plan doctors will become merely hired men of the insurance companies.

Every county medical society, every State medical association and the American Medical Association, during the year 1933, at the earliest possible meeting, should adopt ordinances, or by-laws to their constitutions, outlawing the practice of medicine by insurance companies. If prompt action is taken the insurance companies will abandon their plans to employ doctors to care for the sick among their policyholders.

There can be no objection to casualty or other insurance companies employing their own physicians to provide surgical attention to employees of corporations in case of accident, or other injuries, for which corporations are liable under the compensation acts of various States; and certainly insurance companies have the right to employ physicians to examine their policyholders, in case of illness in order to prevent being imposed upon by the policyholders, but the employment of a physician, or a group of physicians, by insurance companies to practice medicine for them is most reprehensible and should not be permitted.

The Texas Plan for Control of Contract Practice

The contract practice problem has been disposed of very satisfactorily in Texas; and the Dallas plan, if adopted in every city and State in the nation, would eradicate the evils of industrial medicine. A number of Dallas physicians had contracts for the medical care of the employees of several corporations. Eighteen Dallas physicians were suspended from membership in the Dallas Medical Society for participating in those contracts. They appealed to the State Medical Association, which upheld the ban on contract practice by the Dallas Society. The physicians having contracts then appealed to the American Medical Association which sustained the action of the Dallas County Medical Society and the Texas State Medical Association; whereupon the eighteen physicians gave up their contracts, and corporation practice except for emergency surgery and in lumber camps and mining camps has been eliminated from Texas. The following amendment to the by-laws of the Dallas County Medical Society, was upheld by the Texas State Medical Association and by the Judicial Council of the American Medical Association:

"No member or combination of members shall either directly or indirectly enter into contracts or agreements to render professional service under the system known as contract practice except in situations wherein the needed medical and surgical services cannot otherwise be obtained. (As, for instance, railroad surgeons, physicians or mining camps, lumber camps, instances to meet necessities of patients to be served)."

"Any member or members entering into contract with individuals, corporations or other concerns to provide medical and surgical services for groups of individuals, or individual groups, to cover a period of time, for stipulated remuneration shall be in violation of this regulation and subject to the penalty otherwise provided for unethical conduct."

Most of the physicians with whom I have discussed the subject, while they disapprove of the majority plan, say that "the insurance companies, or the State, or both will take over the practice of medicine and there is nothing that we can do about it." Fortunately those in authority in the American Medical Association do not take that attitude, and individualism in medicine will not be sacrificed on the altars of the ignorance of socialism or the greed of industrialism and insurance commercialism.

PSITTACOSIS

Francis J. Scully, M. D., Hot Springs

While psittacosis has been considered as an unusual condition, it is not as rare as is generally thought, for more than 500 cases have been reported during the epidemic of 1929 and 1930. This recent epidemic has also called more attention to the disease. Perhaps many cases were diagnosed which had formerly been considered due to some other cause. Isolated cases are usually more difficult to recognize than when they occur during an epidemic. The following case, however, seems to be very typical of the disease.

Case Report

Mrs. A. A. C., a young woman aged 26, was seen on May 14th in consultation with Dr.

H. K. Wright. She stated that on May 8th, after a long drive, she had a chill which was followed by a rise in temperature. Later she had nausea, headache and pain in the back. The fever had gradually increased to 104 at the time she was admitted to the hospital on May 12th. She had also developed a slight cough but had no pain in the chest. The cough was slightly productive of a thick mucus secretion. The headache had continued steadily and was very severe. The bowels were sluggish and she was without appetite. After her admission to the hospital, a blood test was made which showed no malaria. The white count was 13,000 with 80 per cent neutrophiles, eighteen small and two large lymphocytes. The urine specimen was negative. A blood culture and a Widal test were also negative.

Examination on May 14th showed the tongue rather heavily coated. The throat was slightly congested and granular. The heart tones were clear. The lungs showed impairment of resonance in the left lower lobe posterior with roughened breath sounds and a shower of fine rales at the end of inspiration. No friction rub was heard. The abdomen was soft. The liver and spleen were within normal bounds.

In view of the findings, it was thought that she might have influenza with a beginning pneumonia. Malaria and typhoid had been ruled out by the negative laboratory tests. However, the patient gave a history that one of the parrots which she had brought from Trinidad in January had been sick for a few days about six weeks previously. The bird had a diarrhea and did not feel well at that time, but apparently made a good recovery. The patient admitted fondling the parrot when it was sick and the question of her having contracted psittacosis was raised.

During her stay in the hospital, the patient continued to have much headache. The cough was also persistent and at times the thick secretion showed streaks of blood. However, she did not have pain in the chest at any time. There was some distension of the abdomen during her second week in the hospital but it gradually subsided. The temperature ranged from 101 to 104 until the 20th of May, after which it gradually subsided and reached normal on the 25th. After the temperature subsided, the headache became less marked and the patient improved rapidly. She was able to leave the hospital on May 25th.

On May 16th, the white count dropped to 4,600. The differential count showed 77 per cent neutrophiles; twenty were of the juvenile and staff types, making a rather marked shift to the left. Repeated white counts continued low, ranging from 5,400 to 6,000. The neutrophiles gradually dropped to 68 per cent on May 25th.

On May 17th an X-ray was made of the chest, which showed the left pulmonic field somewhat dim in the lower lobe, giving the appearance of a recent pneumonic process. Tests for undulant fever and tularemia were negative.

While the patient was in the hospital, 5 cc. of a 1 per cent solution of mercurochrome were given on the 16th without reaction. This was repeated on the 18th in the evening. The next morning the temperature rose to 105, but it is difficult to associate this rise with the injection of mercurochrome. No other treatment was given except general care and attention to elimination.

A final diagnosis of psittacosis was made on the following points: First, the history of contact with the sick parrot; second, severe headache with signs of marked toxemia; third, slight, persistent cough with scanty, thick expectoration; fourth, signs of local pulmonic involvement without chest pain; fifth, leukopenia with a marked shift to the left in the neutrophiles.

Psittacosis was first described by Ritter (1) who observed an epidemic in Switzerland in 1879, which occurred three weeks after the arrival of a shipment of parrots from Hamburg. He described the condition as a "pneumotyphus," from its resemblance to both pneumonia and typhoid. In 1891, a rather severe epidemic was reported in Paris following the importation of a number of parrots from South America. Considerable attention was given to it at that time and a number of bacteriological studies were made by Nocard (2). In the United States, the first cases reported were by Vickery and Richardson in 1904 (3), by Scott in 1906 (4); by McClintock in 1925 (5) and by Sailer in 1928 (6). The epidemic of 1929 and 1930 was, however, by far the most extensive yet reported in this country. Cases were reported in more than fifteen States.

The source of the infection has been traced to a similar disease in parrots. Most of these parrots have come from South America, in the region of the Amazon River, and outbreaks have occurred in different countries to which these birds have been shipped. Other outbreaks have followed from birds brought in from Trinidad, Cuba, and Germany. While the principal transmitting agent is the parrot, experimental observation has shown that other species of birds such as parrakeets, finches, and canary birds may be carriers of the disease.

The symptoms of the disease in parrots are not very characteristic. The parrot sits quietly, becomes droopy, refuses to eat and about one-half the cases show a diarrhea with foul-smelling stools. The feathers become ruffled and after a few days the bird develops a mucus secretion from the nose with some sneezing. The condition is rather serious amongst birds and when infected most of them do not recover. However, the bird may not present any symptom of the disease and may be a carrier of infection for the disease which it has overcome. Ellicott and Halliday (7) state that two of the parrots whose illness was followed by human illness were only slightly ill and later made an apparent full recovery.

The disease in a parrot usually precedes the disease in man. The disease is highly communicable from the bird to man, and Armstrong (8) stated that the degree of infectivity approaches that of measles and smallpox. Most human cases have followed contact with birds. Only a few instances have been reported where the infection has been spread from man to man and these cases are rare and exceptional.

The individuals who contract the disease usually are connected in some way with the handling of parrots, either by cleaning the cages, or feeding them. There is generally a history of hand to mouth feeding, or direct mouth to mouth feeding, or fondling the parrots, particularly when they are sick. As the birds are considered to be the active source of the infection, it would be expected that the employees of the pet shops where the sick parrots were found might be expected to develop the disease earlier than those who come in contact with the birds later on. Armstrong noted this in one outbreak of eighteen cases. At one particular pet store, Badger (9) reported four cases among employees of a department store who were employed on the floor where the parrots were kept. While most cases occurred by direct contact there are undoubtedly instances which develop by contact with infected material such as feathers or during laboratory examination of tissue and infected material (10). The point of entrance of the infection is undoubtedly through the upper respiratory tract.

From studies made by Nocard (2), which he reported in 1893 following the epidemic in Paris in 1892, it was believed that the cause of the disease was a short bacillus which had been isolated from the bone marrow of the diseased parrots. In 1896, Gilbert and Fournier (11) reported the finding of the same organism from a patient suffering from this disease. This organism was called bacillus psittacosis and was considered to be the causative factor from that time until the recent epidemic. The bacillus psittacosis was held to be closely related to the bacillus paratyphosis and the bacterium enteritidis by Perry (12). Recent experimental work seems to definitely eliminate this organism as the cause of the disease. Bedson and his associates (13) in their investigation demonstrated the presence of a filterable virus in the organs of a parrot which was responsible for human infection. Armstrong and McCoy (14) in their experimental work also concluded that the causative agent was a filterable virus.

The interval between the exposure to the infected bird and the onset of symptoms has varied a great deal. Armstrong (8) in a report of 169 cases stated that this interval varied from 6 to 82 days. In 45 cases the interval was from six to fifteen days, which is usually considered to be the incubation period.

Women are more usually affected by the disease. This is probably due to the exposure occurring in the home where the woman spends a relatively latter part of her time and the fact that care of the birds commonly falls to her. In 167 cases studied by Armstrong, 63 per cent occurred in women.

The disease usually begins with a chilly sensation, pains in the back and legs, headache and loss of appetite, with a gradual rise in temperature. In a study of 169 cases, Armstrong (8) found the outstanding symptoms to be headache in 112 cases, malaise in 107; cough in 106 cases, chills in 98 cases,

anorexia in 92 cases, constipation in 87 cases, and coated tongue in 85 cases. According to Bortz and Greene (15), epistaxis occurred in 30 per cent of the cases.

The fever when first noted is generally about 100-102 and tends with irregular remissions to rise to the height of 103 to 105, during the second week. The highest stage of the fever lasts about 10 to 12 days and is followed by a slow drop during the next week. A sudden drop of fever has not been observed.

With the fever there is considerable nervousness, such as restlessness, a tendency to depression, slight delerium or stupor, which may become more marked as the temperature increases and the evidence of the disease becomes more pronounced. Headache is generally complained of and is quite severe. The pain is sometimes general but most usually is located in the frontal region. There is rather a marked loss of appetite but considerable thirst continues throughout the fever. As the condition continues the abdomen becomes distended and is often an annoying symptom. The tongue becomes coated early, the center of the tongue may be heavily coated and the edges red.

The pulse varies somewhat but is generally slow considering the temperature, resembling the bradycardia of typhoid. The pulse is soft and easily compressible. The blood pressure if often below normal. Perhaps one of the most characteristic symptoms is the pulmonary involvement. There is usually a little cough which later on brings up a thick, stringy mucus, that at times is blood tinged. Considering the amount of lung involvement that is present, there are very few symptoms related to it. Some cases show a tendency to diarrhea and typhoid-like toxemia.

Following the slight bronchitis, a slight impairment of resonance with some tubular breath sounds may be present, particularly in the lower lobes. In most cases, the involvement has been in the left side. During the course of the disease, the process may continue until the entire lobe is involved.

X-ray of the lung areas in this disease shows a faint cloudiness in the base of the lung which gradually becomes larger, reaching its maximum extent in about four or five days after the onset of the disease. There is an absence of the mottling that is seen in broncho-pneumonia, and the shadow is less opaque than in typical lobar pneumonia, and different in contour from that in pulmonary infarction. A rather careful study of the *X*-ray findings was made by Peterson and Spaulding (16) in seven cases in which the involvement was in the left lower lobe in each case. They state that the homogenous density, contour, and location of the exudate differed from that of other pneumonic consolidations. Another characteristic feature in every case as the disease progressed, was the migration or creeping upward of the exudate behind the scapula with the lung clearing up behind. There was a tendency of the involvement to jump to the opposite base where it progressed in the same manner.

Laboratory examination showed an absence of leucocytosis in most cases. Generally there was a leukopenia with a decided shift to the left in the neutrophiles which continued during the disease and gradually cleared up with the disappearance of the fever. In some cases, counts of 3000 and 5000 were not uncommon. In a case reported by River (17) there were as many as 31 per cent of the band forms of neutrophiles present. The shift to the left in the neutrophiles is generally marked and reaches its maximum about the ninth day. The urine has shown small amounts of albumin and occasionally a few granular and hyalin casts. Repeated blood cultures have been negative and tests for typhoid, tularemia and undulant fever have been negative. There is no special agglutination test for psittacosis.

Pathological studies by Bortz and Green (15) show patchy areas of dry consolidation with a fibro-cellular exudate filling the air spaces in the portion of the lung involved. Siegmund (18) in a histological study of the lungs stated that the process differed from the other pneumonies. It is a catarrahal pneumonia, poor in fibrin and leucocytes. The spleen and liver are enlarged and somewhat soft. The kidneys reveal mild congestive glomerulonephritis.

The course of the disease is about two to three weeks though it may extend to four weeks. The severity of the disease seems definitely associated with the degree of lung involvement, which is apparently the determining factor in the development of the toxemia. When the infiltration is small and confined to one lobe, the patient is not very sick. Children and young individuals have

a milder form of the disease. When death occurs, it usually comes at the height of the disease, with marked symptoms of myocardial weakness. Relapses are not uncommon and resemble the original infection except that they are milder. Convalescence is rather slow and long drawn out.

The mortality rate varies from 20 to 40 per cent. Armstrong in 169 cases reported 33 deaths or 19 per cent. The age of the patient is an important factor in determining the outcome. Children and young adults tend to have a milder attack and no deaths were reported in patients under 35 years of age. Death is probable due to pulmonary involvement with the myocardial weakness and usually occurs between the seventh and fifteenth days.

The diagnosis of psittacosis presents a good deal of difficulty. It is very likely that it has been overlooked quite frequently even in the presence of an epidemic. Isolated cases are very difficult to recognize unless the source of the infection has been considered. One of the most important factors in the diagnosis is the connection of the case with an infected parrot. The acute onset of the condition with rather rapid rise of temperature and the early development of characteristic lung findings with scanty sputum and severe headache, and abdominal distension are all important characteristic symptoms. These along with the peculiar *X*-ray findings in the lungs and the leukopenia, with a marked shift to the left in the neutrophiles are helpful in making a diagnosis.

Rabinowitz and Livingston (19) consider the following clinical points as being characteristic and of diagnostic importance. First, history of exposure to a diseased bird; second, incubation period of approximately nine days; third, marked headache; fourth, toxemia which may be decidedly out of proportion to the physical observations in the chest; fifth, slight cough with extremely scanty, thick, tenacious expectoration, which may or may not be blood tinged; sixth, an extremely fine type of crepitant rale; seventh, roentogram evidence of dense consolidation of part of a lobe of the lung almost from the onset of symptoms; eighth, no pleuritic involvement in the face of extensive pulmonary pathological involvement; ninth, moderate or no leucocytosis in the presence of severe pneumonic infection; and tenth; a tendency to venous thrombosis.

The differential diagnosis must consider several diseases, mainly typhoid and influenza. In typhoid the onset is slower and the temperature rise is not so rapid. The alimentary symptoms are more marked and the typhoid roseola which appears about the 9th day is characteristic of typhoid. The most important differential points are the negative blood culture and the negative Widal in distinguishing the disease from typhoid. Para-typhoid gives much the same symptoms and is similarly differentiated.

There is considerable difficulty in distinguishing the condition from influenza. The acuteness of the onset with headache, general pains, anorexia, and slight cough very naturally suggest influenza and probably many cases have been confused on this account and have been diagnosed as influenza or flu. In neither disease is there any peculiar diagnostic criteria, either from physical signs or from laboratory tests. There is also pulmonary involvement in both diseases but it is generally more pronounced and more acute in influenza. The *X*-ray picture in influenza resembles more that of bronchial pneumonia than the involvement of psittacosis.

Since there is some doubt as to the exact causative agent, the treatment of the disease has been largely symptomatic. Injections of convalescent serum obtained from patients who have recovered have been tried; and Adamy (20) believes that good results were obtained by its use. In addition to the use of these special serums, heart stimulants such as digitalis, strophanthus, as well as caffein and adrenalin have been used. A word might be said about the prevention or prophylaxis of the disease. Since it is a disease associated with recently imported parrots and other pet birds, the control is largely a matter of regulating importation of parrots and their sale in this country.

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*Read before the meeting of the Fourth Councilor District Medical Society, held in Pine Bluff, October 4, 1932.

MEDICINE AND PUBLIC HEALTH

H. T. Smith, M. D., F. A. C. P., McGehee

Medicine as it is practiced today by the majority of the medical profession, concerns itself more especially with the diagnosis and treatment of diseases that have advanced to where they begin to incapacitate the individual.

Most of such diseases occupy the time and thought of the medical profession and have reached the "advanced stage." Few diseases relatively speaking, are treated by the profession in the "early stages," and fewer still in the "predisposing stages."

The general practitioner of the future must become a practitioner of preventive medicine, and the people must learn that preventive medicine, like curative medicine must be paid for. People must learn to save for sickness as they now save for luxuries or in anticipation of death. The medical profession of the future must find the patient before irreparable damage has been done, and to treat the disease in its more curable stages.

In certain fields of medicine the tendency of medical thought and practice is from the pathological to the physiological phase of vital conservation. Medical textbooks teach that pregnancy is a normal state of being, but we know that every pregnant woman is entitled to and should have medical care, in order to prevent dangers that threaten the expectant mother and child.

Infancy is also a normal state of being, but a state of enfeebled vitality, and a time of life where dangers threaten more than normal pregnancy.

It is to the general practitioner that the duty of the pediatrician falls, for it is to his credit that the healthy babe put in his trust is to receive increasingly complete health service, whatever the economic status of the parents, until the child is by law at liberty to engage in self support. No single element in the advance of preventive medicine has contributed so much to the increase in average expectancy of life, to the prevention of infant mortality, and the reduction of many communical and nutritional diseases of childhood, as the introduction of health supervision.

Prevention is much newer as a practice than as an ideal in medicine. Medical ideals, the larger objectives of the profession, have always been the prevention of disease. The pride of the profession, the respect in which the public holds it, the distinction which it holds over the cults, is, that through its discoveries and their application smallpox and typhus and yellow fever have been banished, and diseases in general have been greatly reduced; the efficiency and happiness of life and longevity have been definitely advanced.

The "Principles of Medical ethics" embodying a statement of ideals of the organized medical profession of the United States, in chapter III, relating to the "Duties of the Profession to the public" especially and urgently advises the members of the profession

to take an active and advanced position in their communities, their States, and their nation in proposing legislation for the prevention of disease, in supporting officers for the enforcement of such legislation, and in every possible way preventing disease in the interest of the public's welfare.

The field of medicine must include within its activities both the cure and the prevention of disease, and the tendency will be to increase its work in the prevention of disease.

The medical societies throughout the land should take the initiative in recapturing as it were, for the medical profession the program of public health work.

Preventive medicine has become a definite part of the work of the general practitioner, and he should be paid for his services in this direction.

In a recent discussion at the meeting of the A. M. A. Dr. H. F. Vaughan, Dr. P. H. of Detroit, made the following statement:

Three years ago we did away with all free clinics for immunization of persons against diphtheria. We have not had a free clinic in three years, and this city has the highest percentage of protection between 1 year and 10 years of age when children have diphtheria, of any large community in the United States. Seventy per cent of the children of preschool age, 80 per cent of the children, and 50 per cent of the youngsters under one year of age are protected against diphtheria.

In the year 1931 this meant $200,000 in the pockets of the physicians who participated in the co-operative work. All of this work was done in the physicians' offices with no free clinic by the health department.

During this same period vaccinations and other inoculations increased from 22 to 45 per cent and the physicians were paid for this service.

Advantages of this program:

1. The policy is in keeping with the average American's desire to choose his own grocer, his own clothing and his own physician.

2. It tends to place the responsibility, for that particular phase of child health at last, in the hands of the parent where we believe it rightfully belongs.

3. It makes a substantial beginning in attaining the goal toward which we are aiming, a greater degree of participation on the part of the private practitioner of medicine in the field of preventive medicine and health promotion.

4. It has a cumulative educational effect on both the patient and the physician which does not obtain in the clinic system.

5. This system seems to result in the immunization of a larger percentage of the most susceptible age group, the school child.

The following is a statement made by Dr. Morris Fishbein in a recent article in the Journal of A. M. A.:

It has become apparent that the general practitioner of the future will depend largely for his existence on the practice of preventive medicine as well as the treatment of disease. Strangely there has developed—no doubt largely by the effects of demonstrations, the action of public health authorities and the preachings of social workers the idea that only curative medicine is to be paid for; that preventive medicine is the duty of the State, and that it is the function the State will assume, there are two types of preventive medicine; first, that for which the community is primarily responsible and which only the community can perform; second, that which involves action of one individual on another and which should always be the function of private practice. The following is an incident reported as a part of a recent demonstration for the control of diphtheria. An enlightened health officer persuaded his community by the use of posters in street cars and on busses, by lectures over the radio, by announcements in the newspapers, and even by circulars sent direct to the homes. The administration of toxin-antitoxin or of toxoid to the children is the most important step in the control of diphtheria. The health officer realized of course, the danger of interfering with the confidence of the patient in their family physicians, so he suggested:

"Ask your physician, or come to the health department. The following is a typical conversation that ensued between mother and family doctor:

"Doctor, do you believe in giving toxoid to prevent diphtheria?"

"Yes indeed."

"Do you use the same serum that the health department uses?"

"Yes indeed."

"What do you charge?"

"Five dollars."

"Doctor, does the health department give the same treatment that you give?"

"Yes."

"Do they charge anything?"

"No, they take the funds out of the taxes."

"Well, doctor, wouldn't I be a simpleton to pay you $5.00 when I can get the same service from the health department for nothing?"

I venture the guess that every doctor present has had just such an experience, with some of his patients. Such medical service is unfair competition, and interferes with the peaceful pursuit of the private practice of medicine. "It is a gross injustice; why not provide free groceries, free homes, and free automobiles?" An understanding is necessary for the greatest efficiency of both those who are engaged in private practice and those employed in public health. Such an understanding when arrived at, will rest on a division of labor.

A proper division of this labor will have to be decided by the doctors in each community of city. The health units devoting themselves largely to the enforcement of public health laws, particularly quarantine. The health officer should be the representative of the public whose first duty would be to enforce health laws, and whose second and larger duty would be to serve as an organizer of such social and professional machinery as is necessary to bring about the largest possible reduction in morbidity and mortality rates.

As a solution to all of the differences between the medical profession and the health department, I offer you: The Principles of Medical Ethics. Article five. Section one; diversity of opinion may occur in the medical profession. When such unfortunate case occurs and cannot be immediately adjusted, it should be referred to an impartial board of physicians for adjustment. In the recent past lay people and some doctors have been disposed to make light of the code of ethics of the medical profession and to charge that it stands in the way of progress.

Our code may be in the way of some forms of so-called progress. We are firm in the faith however, that progress ungoverned will terminate in disaster; that the road to genuine progress and happiness of humanity is the road on which travelers are governed not merely by laws but by ethical principles and the sooner unethical poitics, and unethical business, and unethical banking are "tabood" the sooner genuine progress will be established.

TRUTH ABOUT MEDICINES
NEW AND NONOFFICIAL REMEDIES

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Diphtheria Toxoid—U. S. S. P. A diphtheria toxoid (New and Nonofficial Remedies, 1932, p. 370) prepared from diphtheria toxin whose L — dose is 0.2 cc. or less by treatment with formaldehyde. The product is standardized to contain in 2 cc. enough of the toxoid for one immunization treatment. It is marketed in packages of two 1 cc. vials; in packages of twenty cc. vial; and in packages of one 30 cc. vial. United States Standard Products Company, Woodworth, Wis.

Maltine with Mineral Oil and Cascara Sagrada. A mixture of liquid petrolatum (New and Nonofficial Remedies, 1932, p. 245), 40 cc., and Maltine (New and Nonofficial Remedies, 1932, p. 273), 60 cc., containing a non-bitter extract of cascara sagrada representing 2.2 gm. of cascara sagrada per 100 cc. The Maltine Co., Brooklyn, N. Y. (Jour. A. M. A., February 11, 1933, p. 411.)

Sterile 5 per cent Dextrose Solution in Vacoliter Container. Each 100 cc. contains dextrose, U. S. P. (New and Nonofficial Remedies, 1932, p. 262), 5.25 gm. Don Baxter Intravenous Products Corporation, Chicago.

Sterile 10 per cent Dextrose Solution in Vacoliter Container. Each 100 cc. contains dextrose, U. S. P. (New and Nonofficial Remedies, 1932, p. 262), 10.5 gm. Don Baxter Intravenous Products Corporation, Chicago.

Ampules Scopolamine Stable-Roche, 1-100 gr., 1 cc. Each ampule contains 1.2 cc. (1 cc. contains 0.0006 gm. of scopolamine hydrobromide). Hoffmann-La Roche, Inc., Nutley, N.J. (Jour. A. M. A., February 25, 1933, p. 574.)

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorials

ANNUAL MEETING OF THE STATE SOCIETY

The annual meeting of the Arkansas Medical Society, which will be held in Hot Springs, May 2, 3 and 4, is offering a very attractive program and one you can ill afford to miss. Our guest speakers are men of outstanding prominence. We will be honored by a visit from the President-Elect of the American Medical Association, Dr. Dean Lewis, who is also Surgeon-in-Chief at the Johns Hopkins Hospital, Baltimore. We will be further honored by addresses from Dr. Philip F. Barbour, Professor of Pediatrics at the University of Louisville and President of the Kentucky State Medical Society; Dr. Evarts A. Graham, Professor of Surgery at Washington University School of Medicine, St. Louis; Dr. H. H. Turner, an Internist of Oklahoma City, and Dr. S. C. Barrow, Shreveport, who is President of the Louisiana State Medical Society. In addition to the above, will be found some of the best talent this State has to offer. We believe the members of this Society have never had greater inducements offered them to attend an annual meeting. As an added feature of the program this year the committee has arranged for one or two members, whose names will appear on the program, to open the discussion on each paper.

R. J. Calcote, *Chairman*,
Wm. R. Bathurst,
R. B. Robins,
Committee.

THE MONTREAL MEETING OF THE AMERICAN COLLEGE OF PHYSICIANS

Oliver C. Melson, M. D., F. A. C. P.
Little Rock

The seventeenth annual clinical session of the American College of Physicians convened in Montreal, Quebec, February 6th to 10th, inclusive. Five days and four nights of concentrated medical education comprised the program, and the depression was relegated to the rear seats.

Clinics in the mornings, papers in the afternoons and evenings—that was the order. Luckily, a short intermission each afternoon, allowed time for a glass of beer and a few pretzels before the reading of the remainder of the papers. Of course, those who wished took "afternoon tea" instead.

To attempt a synopsis of all the papers would require more space than can be allowed. However, at the risk of having some of my "copy" deleted, I shall report some of the high lights of the program.

At this meeting Doctor William B. Castle of Boston was awarded the John Phillips prize and delivered his thesis on "The Etiology of Pernicious Anemia and Related Macrocytic Anemias." This study had much of the romance of the discovery of insulin, and the essayist held the audience spellbound as he recounted the intricacies of the problem and their solution. His conclusion was that vitamin B plus an unknown factor in the gastric secretion resulted in the arrest of the symptoms and blood changes of pernicious anemia and conversely their absence produced the symptom complex.

Doctor Roger S. Morris of Cincinnati added some more information toward the solution of the pernicious anemia problem in his report, "Observation on Addisin in Diseases of the Blood." Addisin is the name he has applied to an unknown substance obtained from the gastric juice of swine. By subcutaneous injection he has obtained marked and prolonged increases in reticulocyte counts of pernicious anemia patients.

Of interest to pediatricians was the paper of Doctor Alan Brown of Toronto, entitled "The Effect of Vitamins and the Inorganic Elements on the Growth and Resistance to Diseases in Children." He has evolved a cereal and a bread which contain the vitamins, and the inorganic elements in sufficient amounts so that however faulty the remainder of the diet may be, the children may still obtain sufficient of these substances to maintain their normal rate of growth and their normal resistance to disease.

Several of the essayists brought messages extolling the virtues of a knowledge of psychology and psychiatry in the general practice of medicine. Such subjects as "The Patient as a Person," by Doctor A. H. Gordon of Montreal, "The Internist as His Own Psychiatrist," by Doctor Alfred Stempel of Philadelphia, and "The Nervous Patient," by Doctor George C. Hale, of London, Ontario, show that some interest is being aroused in other than organic disturbances of the individual.

A contribution of unusual interest was by Doctor Wallace Yater of Washington, entitled "The Differential Diagnosis of Diseases of the Liver and Spleen by the Aid of Roentgenography after Intravenous Injection of Thorium Dioxide Sol." This paper was illustrated by lantern slides showing roentgenograms of injected spleens and livers. It was interesting to see how these organs could be made so distinct by the thorium. This metal is said to remain an incredibly long time in the body after such an injection. It was my impression that it would not be suitable for a routine procedure.

One entire evening, that is, from eight to ten, was given to the physiologists and experimentalists. Best, Doisy, Collip, Hartman and others presented their latest conceptions in their several lines of endeavor.

Quickly transforming the hall of scientific discussions into a beer garden, the conventioners were treated to a smoker. The headliner was the Professor of Botany of McGill who showed his lantern slides and movies of carnivorous plants. This was unique in every respect, instructive and ludicrous at once.

At the annual convocation Sir Andrew Macphail, Professor of Medical History at McGill, spoke on "The Source of Modern Medicine." He gave the date 1685, the year Charles II died, as the beginning of modern medicine. He named Sydenham as the first exponent of modern medical methods and showed his influence upon the physicians who were contemporary and who followed him. Such men of medical history as Boerhaave of

Leyden, Pitcairn of Edinburgh, and Dover of Dover's powder fame, all came under the spell of Sydenham's methods. A quotation from Doctor Macphail's paper briefly summarizes Sydenham's system: "To do without hypotheses, and study the actual disease with an open mind; to make an unbiased study of the natural processes in health and disease; to trust in the healing power of nature—for nature is the mother and healer of us all—and provide help only when help was demanded, that was his re-discovery, for the original discovery had been made by Hippocrates himself."

Montreal and McGill can well be proud of Doctor Maude E. Abbott and her magnificent collection of congenital heart lesions. It was from a study of this collection that she evolved her classification which is considered authoritative at the present time.

In the laboratories of the medical service at the Royal Victoria Hospital many physiological problems are in process of solution. For instance, by means of an elaborate electrical apparatus Doctors Christie and Shepherd have charts of continuous observations of the heart and respiratory rates in man under various phases of rest and exercise and in disease as hyperthyroidism, heart disease, nephritis and the like. Many of these tracings extended over the length of the room. No conclusions have been reached, but in due time these observations may contribute to our knowledge of health and disease.

A ward walk with Doctor Campbell Howard was both delightful and instructive. After its completion we repaired to the pathological department where a case of Simmons disease, hypophyseal cachexia, was demonstrated. This was the first case of this syndrome that had found its way into the Montreal General Hospital. It is characterized by premature senility, retarded growth, infantalism, low metabolic rate, loss of sex functions, and gradual decline. All of these symptoms and signs are produced by pressure upon and consequent atrophy of the pituitary gland. In this case it was due to a cyst which had formed in that part of the pitnitary gland which embryologically originates from Radke's pocket, the pars intermediaris.

A visit to Montreal without seeing Osler's Library would be like a visit to Paris without seeing the Eiffel Tower. This store room of antiquity is in the main building of the McGill Medical School and is in charge of Doctor W. W. Francis, a nephew of Doctor Osler. There one can see such interesting publications as the first ether papers, the letters of Thomas Brown, the first edition of Harvey's work, the Anatomy of Fabricius and many other milestones in the progress of medicine. Of equal historical interest was Osler's Pathological collection consisting of mounted specimens which he himself had prepared. It was like worshipping at a shrine.

Editorial Clipping

ARE WE SOLICITING?

From time to time the attention of the Association is called to some new form of health insurance in West Virginia that involves the solicitation of patients. Every doctor and every hospital that subscribes or participates in any plan of health insurance should first make sure that the element of solicitation is entirely eliminated. Solicitation of patients is the one thing that will bring havoc to the medical profession, because it creates dissension and strife within the profession itself. Organized medicine has little to fear so long as the doctors put up a united front, but organized medicine has everything to fear if the doctors lose faith in one another.

Somehow it rarely occurs to the average doctor or hospital superintendent that there is one form of solicitation that is entirely harmless. That is, the solicitation of patients for some form of health insurance that leaves the patient absolutely free to select the doctor and the hospital of his choice. One such plan is already in operation in West Virginia and, while it has certain faults, it does not antagonize the doctors with the solicitation problem.

No group of doctors and no group of hospitals can operate any ethical plan of health insurance unless all the doctors and all the hospitals are included in the plan. That should be the iron-clad rule in every health insurance plan. Otherwise, either the plan or the profession will sooner or later come to grief.

In order to illustrate our point, let us assume that there are two hospitals in a given community, and fifty doctors. One-half of these doctors belong to the staff of hospital

A, and the other half belong to the staff of hospital B. The wage earners in the community have great difficulty with their medical and hospital bills and there is a crying need for some plan that will take care of them.

Recognizing the demand for a sickness fund of some sort, hospital A organizes a health insurance plan. A solicitor is employed. The solicitor calls on the wage earners and, for the payment of $2.20 per month, guarantees them medical and hospital service at hospital A. Little attention is paid to the plan until a sizeable group is organized. Suddenly hospital B realizes that many of its patients have been lured away by hospital A. The staff members discover that many of their patients have gone to the staff members of the now rival hospital. Hospital B, and its staff, can do but one of two things. It can protest to the Association, or it can organize an insurance plan of its own and, by underbidding, attempt to lure its patients back into the fold. Either of these alternatives is bad; very bad.

Suppose in this community, or a similar community, there is a real leader of the profession. He looks far enough ahead to anticipate the chaos that will result from the plan outlined above. So he gets the two hospitals together, he explains the whole matter to the staff members of both hospitals, he recognizes the demand for some monthly-payment plan, and the two hospitals join hands to work out their mutual problem. The result is a plan that may employ the same solicitor at the same rate, but which gives all subscribers free choice of hospital and physician. Here, instead of chaos, we have union. We have a plan that will draw the hospitals and the physicians together, instead of driving them further apart.

Sickness insurance plans should be looked upon by the medical profession, especially in this day and age, as necessary evils. Every sizeable community is going to have some plan of sickness insurance whether the profession likes it or not. If the doctors and the hospitals don't get together and organize a plan of their own, somebody else will. If such plans are bad, that is all the more reason why they should be controlled within the profession. It is far wiser for the profession to get control of these insurance schemes than to risk the chance that the insurance schemes, in lay hands, may some day control the profession.

The Journal does not for one minute advocate the organization of health insurance plans throughout the State, nor does it endorse any particular plan in any particular community. We do feel that in some sections, where there is an unquestionable demand for some health insurance plan, the doctors and the hospitals would be wise to go into the matter openly and frankly and work out a satisfactory solution before someone else works out an unsatisfactory plan. There is no reason why any county society should hold aloof from such a move.

There has been too much fear and trembling over this octopus of sickness insurance. We have made a bugaboo of it. The subject is taboo in polite medical circles. It is hushed up in county society meetings. What we need at this time is the courage to bring this problem out in the open and the confidence to speak openly on the subject without hurting the feelings of our confreres. Sickness insurance is not a bugbear, but a very decidedly reality. If it's bad, let's get control of it. If it's good, let's keep that control.—*The West Virginia Medical Journal.*

Personal and News Items

During the existence of bank adjustment county secretaries are requested to remit State dues by post office or express money orders.

The American Association for the Study of Goiter will meet May 15, 16, 17, at Memphis, Tennessee. Headquarters, Peabody Hotel.

Dr. Geo. F. Jackson of Little Rock was appointed by Mayor Knowlton, as a member of the board of commissioners to supervise the personnel of the Fire and Police departments.

Dr. F. Vinsonhaler of Little Rock was awarded a medal from the Columbia University for conspicuous service rendered the University.

The Greene County Medical Society reports the following officers for 1933: President, J. J. Hudgins, Paragould; vice-president, W. E. Ellington, Paragould; secretary-treasurer, W. M. Majors, Paragould.

At the regular monthly meeting on February 6 of the Saline County Medical Society, Dr. O. C. Wenger of Hot Springs Public Health Clinic gave a very interesting description of the work of the clinic, and showed how the general practitioner can apply the treatments in their home town.

The Independence County Medical Society elected the following officers for 1933: President, E. M. Gray, Batesville; vice-president, V. D. McAdams, Cord; secretary-treasurer, M. S. Craig, Batesville. Delegate to the State meeting, C. G. Hinkle, Batesville, and alternate, V. D. McAdams, Cord.

The Tri-States Medical Society, composed of Arkansas, Texas and Louisiana, held its twenty-eighth annual session March 15 and 16, at Marshall, Texas. Dr. Martin C. Hawkins, Jr., of Little Rock appeared on the program with a paper on "Benign Uterine Bleeding."

The Hot Spring County Medical Society met in the office of Dr. E. T. Bramlitt, March 6, and elected the following officers for 1933: President, J. M. Williams, Malvern; vice-president, E. T. Bramlitt, Malvern; secretary-treasurer, H. L. Brown, Malvern; delegate to the State convention, W. G. Hodges, Malvern, and alternate, J. M. Norton, Donaldson.

MEDICINE MUST BE UNDER THE CONTROL OF PHYSICIANS

Organization in its broadest sense has undoubtedly resulted in efficiency, but organization in banking has not taken it out of the hands of the bankers. Organization in business and industry has not taken these operations out of the hands of business men and industrialists. Whatever the future has in store for medicine, the medical profession must never relinquish its control to persons or organizers of non-medical training. Never was it more urgent that the medical profession as a whole should realize this.

—*Journal, Michigan State Medical Society.*

Auxiliary Notes

Mrs. P. H. Phillips, president, presided over an executive board meeting of the Woman's Auxiliary to the Arkansas Medical Society, which was held at the Woman's City Club in Little Rock, February 28. Mrs. Pat Murphey acted as secretary for the meeting in the absence of Mrs. L. H. Lanier. Committee and County reports were heard. Mrs. Chas. H. Nims announced that plans are being made for an interesting State meeting in Hot Springs, May 2, 3 and 4. The program will appear in the April Journal. Members present were: Mrs. P. H. Phillips, Ashdown; Mrs. B. A. Rhinehart, Mrs. C. E. Oates, Mrs. J. B. Crawford, Mrs. Pat Murphey, and Mrs. C. W. Garrison of Little Rock; Mrs. Chas. H. Nims, Mrs. H. King Wade and Mrs. A. H. Tribble of Hot Springs; Mrs. Curtis W. Jones of Benton.

The January meeting of the Woman's Auxiliary to the Bowie-Miller Counties Medical Societies was held Friday, January 27, in the home of Mrs. R. R. Kirkpatrick. Hostesses were: Mrs. R. R. Kirkpatrick, Mrs. E. A. Hawley, Mrs. J. F. Williams, Mrs. J. T. Robison and Mrs. Frances Spinka. The Philantrophic committee reported that forty Christmas stockings had been filled by members and distributed during Christmas week. The Hygeia committee reported thirty subscriptions. Following the business meeting, Mrs. Harry Murry read a paper on "The Place of Sports in America." Current Medical topics were discussed by Mrs. S. A. Collom, Mrs. W. L. Kitchens, Mrs. E. M. Watts, Mrs. Joe E. Tyson and Mrs. L. H. Lanier.

The Woman's Auxiliary to the Pope-Yell Counties Medical Society met February 9, at the home of Mrs. R. L. Millard in Dardanelle. During the business session it was announced that subscriptions to Hygeia had been placed in the schools in Dardanelle and Russellville.

County Societies

BOONE COUNTY

(Reported by W. H. Poynor, See.)

The Boone County Medieal Soeiety met in regular session in the offiee of Dr. J. C. Blackwood, Harrison.

Members present: J. C. Blackwood, F. B. Kirby, J. H. Fowler, J. G. Gladden, D. L. Owens, D. E. Evans, W. H. Poynor.

Minutes of the previous meeting read and approved.

The following officers were elected for the ensuing year: President, D. E. Evans, Harrison; vice-president, F. B. Kirby, Harrison; secretary-treasurer, W. H. Poynor, Harrison; eouneilors, F. B. Kirby (one year), W. L. Watkins (two years), and W. H. Poynor (three years); delegate to the State convention, W. H. Poynor; first alternate, J. H. Fowler; second alternate, F. B. Kirby; third alternate, J. G. Gladden.

OUACHITA COUNTY

(Reported by R. B. Robins, See.)

The Ouachita County Medieal Soeiety met in regular monthly session Thursday night, March 2, at the Camden Hospital. Prior to the program the nurses of the hospital served a delightful dinner in the new dining room of the hospital. The scientifie program was furnished by Drs. M. J. Kilbury and S. F. Hoge of Little Roek.

The society re-elected all its offieers for the new year as follows: President, Dr. J. B. Jameson of Camden; vice-president, Dr. T. E. Rhine of Thornton; seeretary, Dr. R. B. Robins of Camden; delegate, Dr. J. S. Rinehart of Camden; alternate, Dr. R. B. Robins of Camden.

The Woman's Auxiliary met at the home of Mrs. R. B. Robins. Offieers eleeted for the year were: President, Mrs. C. S. Early of Camden; president-eleet, Mrs. B. V. Powell of Camden; vice-president, Mrs. T. E. Rhine of Thornton; secretary, Mrs. J. B. Jameson of Camden; delegate, Mrs. R. B. Robins of Camden; alternate, Mrs. B. V. Powell of Camden.

YELL COUNTY

(Reported by Roy I. Millard, Sec.)

The Yell-Pope County Medical Soeiety met in Dardanelle, February 8, 1933. Present were: R. L. Smith, G. C. Webb, L. Gardner, W. P. Searlett of Russellville; W. R. Hunt, Earle H. Hunt, A. L. Boen and G. R. Siegel of Clarksville; Roy I. Millard and E. J. Haster of Dardanelle; M. J. Kilbury of Little Rock. Miss Ellen Phillips, Superintendent of St. Mary's Hospital, Russellville and eight of the nurses were present for the seientific program.

Dr. Kilbury gave a very interesting and instruetive diseussion of "The Blood in Disease," illustrating his talk with lantern slides.

Plans for the next Eighth Councilor Distriet Medieal Soeiety meeting to be held in Clarksville in Mareh were diseussed. Due to this meeting, the Mareh meeting of the Yell-Pope County Soeiety was postponed. The next will be held the second Thursday in April.

BENTON COUNTY

(Reported by C. L. MeNeil, See.)

The annual meeting of the Benton County Medical Association was held in the banquet room of the Youree Hotel, Siloam Springs, Thursday, Deeember 8, 1932, at 6:00 p. m., with president, Dr. H. J. G. Koobs, presiding.

Members present: Drs. Wilson, Scott, Moore, MeNeil, Atkinson, Clemmer, W. A. Piekens, Hughes, Koobs and Estes.

The seeretary read two eommunieations from Dr. C. W. Garrison, Seeretary, State Board of Health.

Dr. Moore read and presented for adoption the attached resolution. Motion made by Dr. Seott; seconded by Dr. Wilson that the resolution be adopted. Motion earried.

Dr. Atkinson made a very complete report of his work as eounty health offieer for the year 1932.

Dr. Koobs made a talk on the necessity of medical men working together and paving the way for the future of organized medieine.

Pre-school and other clinics were diseussed particularly in referenee to their being handled by members of the county soeiety.

There being no further business, we proeeeded with the election of offieers for the ensuing year. They follow:

President, Dr. J. T. Powell, Gravette; vice-president, Dr. C. S. Wilson, Siloam Springs; secretary-treasurer, Dr. C. L. McNeil, Rogers; delegate to State Society for two years; Dr. H. J. G. Koobs, Rogers; alternate, Dr. W. A. Moore, Rogers. Member of the board of censors for three years, Dr. W. A. Moore. Public Health Relations Committee, Dr. W. A. Pickens, Bentonville, two years; Dr. C. S. Wilson, Siloam Springs, one year; Dr. C. L. McNeil, Rogers, one year.

Meeting was adjourned to meet at Bentonville Thursday, January 12, 1933.

RESOLUTION

Be it resolved by the Benton County Medical Association, in regular session convened this 8th day of December, 1932, that—

Because the relations of the majority of the physicians of this county with the State Health Officer, Dr. C. W. Garrison during the past year have been more or less strained, unsatisfactory and unpleasant,

Because that, instead of a spirit of co-operation and helpfulness he has shown a spirit of dictatorship, a lack of courtesy and that of opposition to the best interests of the medical profession,

Because it appears that it is not likely that the differences which have arisen between Dr. Garrison and these physicians as well as many others in the State, will be satisfactorily adjusted,

Because by his actions Dr. Garrison has lost respect and confidence of so many physicians in different parts of the State as well as in this county, and—

Because this will interfere with co-operation in Public Health work between the department of health and these physicians to the detriment of public health and public welfare, we recommend and urge that a change be made in the incumbency of the office of State Health Officer for Arkansas and that a copy of this resolution be sent to each member of the State Board of Health and to His Excellency, the Governor of this State, by the Secretary of our society as soon as possible after the adoption of this resolution, also that a copy be sent to the Secretary of the Arkansas State Medical Society for publication in the Journal.

Dated: December 8, 1932.

IN MEMORIAM

Measured by Eternity, the span of life is but a fleeting experience. To mankind, however, life is measured by years and achievement. Some lives are so filled with useful service that they stand out, even as the flare exceeds the spark. Such was the life of our friend and fellow practitioner of the Healing Art:

JAMES A. LINDSEY, M. D.

Born at Mountain Home, Arkansas, in 1862, he grew to manhood and graduated as a Doctor of Medicine in the University of Arkansas School of Medicine, in 1884.

Possessed of a sturdy physique and a splendid mind, a kindly and pleasant personality, an unflinching devotion to God and his profession, he began a long and useful career in his chosen profession, the private practice of medicine. In 1898 he moved his office to Bentonville and has, for thirty-five years continued in successful practice, as an outstanding example of the ideal physician, skillful, untiring, sympathetic, and inspiring, a model citizen and a Christian gentleman.

He passed from our midst February 2, 1933, but has left us such a rich heritage of memory that we find it difficult to believe him gone. We would, therefore, humbly pay tribute to his memory and dedicate our lives to carry on the work to which he so ably devoted his lifetime.

Be it therefore resolved that this report of the Memorial Committee be spread upon the minutes of the Benton County Medical Society, a copy be sent to the Secretary of the Arkansas Medical Society and a copy be sent to the bereaved family as an expression of our deep sympathy for those left to mourn his loss.

MEMORIAL COMMITTEE
Geo. M. Love.
H. J. G. Koobs.

Book Reviews

The Surgical Clinics of North America. (Issued serially one number every other month.) Volume 13, No. 1. (Pacific Coast Surgical Association Number—February, 1933), 247 pages with 90 illustrations. Per Clinic Year (February, 1933 to December, 1933) Paper, $12.00; Cloth, $16.00 net. Published by W. B. Saunders Company, Philadelphia; 1933.

The clinics in this number have been contributed by twenty-four Fellows of the Pacific Coast Surgical Assoeiation. This assoeiation is composed of surgeons living in California, Oregon, Washington, British Columbia and Hawaii.

The first artiele is by Dr. Rexwalk Brown, Santa Barbara, California, on "Postoperative Rupture of Abdominal Ineision." Aeeording to Dr. Brown, a lesson to be learned from these post-operative ruptures of abdominal ineisions is that in elosing the peritoneum by the interrupted method the sutures should be plaeed close together, or by the running stitch method the spaeing should be very short and the suture eontinuously pulled tight. Gaping should be avoided during the elosing proeedure by passing a finger beneath the partially elosed ineision. The use of this additional eare may be the means of preventing future post-operative eviseeration if there be any eonviction that Freeman's observations are adequate as to eause.

Surgical Errors and Safeguards. By Max Thorek, M. D., Surgeon-in-chief, The American Hospital, Chicago; Attending Surgeon, Cook County Hospital. With a foreword by Arthur Dean Bevan, M. D., Professor and Head of the Department of Surgery, Rush Medical College of the University of Chicago. 668 illustrations, many colored. Published by J. B. Lippincott Company, Philadelphia. Price, $10.00.

So far as is known, there is no Amerieaan work dealing with this subjeet. This book tells us how to avoid complieations and teehnieal errors and how to act when face to faee with some of the abnormal eireumstanees whieh eonstantly present themselves during the eourse of surgieal operations. The eontents are divided into the following ehapters: 1. Errors and Safeguards in Conneetion with Surgieal Operations in General; 2. Failures in Surgery from General Causes Within the Patient Himself—The "Bad Risk" Patient; 3. Errors and Safeguards in Blood Transfusions; 4. Dangers and Safeguards in Operations on the Head; 5. Dangers and Safeguards in Surgieal Operations in the Region of the Neek; 6. Dangers and Safeguards in Operations in the Thorax; 7. Dangers and Safeguards in Surgieal Operations in the Abdomen, in General; 8. Dangers and Safeguards in Operations on the Stomach; 9. Dangers and Safeguards in Intestinal Operations; 10. Dangers and Safeguards in Operations on the Liver, Biliary System, Panereas and Spleen; 11. Dangers and Safeguards in Hernia Operations; 12. Dangers and Safeguards in Operations in the Urinary Traet and on the Male Genitalia; 13. Dangers and Safeguards in Gyneeologie Operations; 14. Dangers and Safeguards in Surgieal Operations Upon the Extremities; 15. Surgieal Failures Due to Defective Instruments and Foreign Bodies Left Within the Body During Surgieal Proeedures; 16. Errors and Safeguards in Surgery of the Spine and Spinal Cord.

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Original Articles

THE CLINICAL MANIFESTATIONS OF CORONARY ARTERIAL DISEASE*

GEORGE W. PARSON, M. D., Texarkana, Texas

The problem of coronary arterial disease concerns every member of the medical profession. Its importance in the everyday practice of medicine cannot be too strongly emphasized. Intensive study has shown that coronary arterial disease is protean in its clinical manifestations; that it is not limited to the aged; and that its destructive power is one of the most important factors limiting life expectancy after the age of forty years. The old maxim that a man is as old as his arteries has been changed to: "A man is as old as his coronary arteries."

Disease of the coronary arteries may be considered as occurring in two forms. One is inflammatory, the other degenerative; one is more common in the young, the other more frequent in those beyond middle life. The clinical manifestations are essentially the same in both and are dependent for their production upon an interference with the blood supply of the myocardium.

The inflammatory type of coronary disease occurs characteristically during the course of acute rheumatic fever. Rheumatic fever frequently involves arteries of various sizes. The coronary arteries may be involved directly by an inflammatory process which develops in their walls, or indirectly by pressure from Aschoff nodules which begin in the adventitia or in the perivascular spaces (1). In either case there will be encroachment upon arterial lumina, diminished blood supply to the heart muscle, and at times thrombosis with complete occlusion of a vessel or of vessels.

These coronary arterial changes furnish a satisfactory basis for a clear understanding of the symptoms of myocardial damage which occur during and after an attack of rheumatic fever. They are of more importance than the accompanying interstitial myocarditis.

The symptoms in the individual case will depend upon the size and the number of arteries involved and upon the degree of involvment. Slater (1) divides the cases into three groups. In the first, a large artery is completely closed with the production of a typical attack of coronary occlusion with myocardial infarction. This group is rare. Slater (2) has reported three cases. In the second group, a number of small or medium size arteries are involved. The symptoms are (1) mild precardial pain; (2) cardiac failure if a sufficiently large number of vessels are affected, and (3) cardiac irregularities and prolongation of the auriculoventricular conduction time when the vessels supplying the conduction system are closed. This is the usual type. In the third group, the healing process results in a fibrotic area in the arterial wall which becomes a locus for the development of arterioselerosis. The sequel is angina pectoris.

A number of cases of angina pectoris associated with thrombo-angiitis obliterans (Buerger's disease) of the extremities have been reported (3). Some of these may be examples of inflammatory coronary disease. I have under observation at the present time a case of thrombo-angiitis obliterans of both the upper and lower extremities. The patient has typical attacks of angina pectoris. Whether the angina pectoris is the result of coronary sclerosis or is due to thrombo-angiitis obliterans of the coronary arteries cannot be determined during life.

Again, there is some evidence to justify the belief that an occasional case of coronary disease may be the result of focal infection. Cases have been reported in which attacks of angina pectoris have ceased after the removal of diseased tonsils (4). Granting that the focal infection was the cause of the anginal

*Presented before the Bowie-Miller County Medical Society April 15, 1932.

attacks, one would expect the coronary changes in these cases to be of an inflammatory nature.

The common form of coronary arterial disease is coronary sclerosis. Its etiology is not known but certain facts are pertinent in that connection. Coronary sclerosis is a part of the aging process; it is therefore much more common in middle and later life. It is not limited to these periods of life however, for a number of cases have been reported in persons under thirty years of age. I have seen a case in which coronary occlusion with myocardial infarction occurred at the age of twenty-nine years. Men are more frequently affected than women, in the proportion of four or five to one; the stress and strain of life then, seems to be a factor in its causation. There is a distinct tendency in some families to the development of coronary sclerosis; so heredity probably plays a part in its development. Sclerosis of the coronary arteries is present in a high percentage of those having essential hypertension (5-6). It should be emphasized though that coronary sclerosis is frequently found in patients whose blood pressure is normal and in whom a history of previous hypertension cannot be obtained. Finally, coronary sclerosis is very common in diabetes mellitus (7-8-9).

Clinically coronary sclerosis may manifest itself (1) by paroxysmal cardiac pain or angina pectoris, (2) by progressive myocardial failure, and (3) by attacks of paroxysmal dyspnea.

The most familiar and the most characteristic manifestation of coronary sclerosis is angina pectoris. The term angina pectoris is used in this paper to denote a definite clinical syndrome characterized by distress in or about the precordium, which bears a constant relation to factors which increase cardiac work. There is nothing distinctive about the type, location or degree of the distress. The only characteristic feature is its relation to factors which increase cardiac work. The distress occurs during the time the increase demand is being made and ceases when the demand stops. This relation to increased demand, is clearly brought out in Herberden's original description (10) published in 1768. He wrote in part, "They who are afflicted with it are seized while they are walking (more especially if it be up hill, and soon after eating) with a painful and most disagreeable sensation in the breast, which seems as if it would extinguish life, if it were to increase or continue; but the moment they stand still, all this uneasiness vanishes." Note the time relation, there is pain while they are walking, not thirty minutes later, and the moment they stand still the distress stops. That moment, of course, is not as short as the time occupied by the twinkling of an eye, but it is fairly short and in the early case it is short. A pain which persists for a long period of time is not the pain of angina pectoris. It may, of course, be the pain of coronary occlusion. We now know that the distress does not always amount to actual pain but that it may be only a feeling of constriction of the chest. To defer diagnosis until the distress is a severe constricting pain accompanied by fear of impending dissolution is usually to postpone treatment until maximum benefit may not be anticipated.

General physical examination, together with electrocardiographic, laboratory, and roentgenologic investigations, frequently reveals no cardiac abnormalities in angina pectoris. It is, therefore, necessary to have a clear conception of the clinical manifestations of the syndrome. A complete history developed by careful questioning is essential in many cases for a correct diagnosis. This is illustrated by the history of the following case. The patient attributed the pain in his lower chest to indigestion caused by a certain kind of food. He had studied his own case very carefully and was convinced that milk was the cause of his distress. Even a small amount of cream in his coffee was sufficient to produce the pain. If he used cream in his coffee for breakfast, he would have pain while on the way to his office. He failed to observe, however, that he had the pain only while he was walking to his office and that it did not develop when he went in his automobile.

Paroxysmal cardiac pain or angina pectoris occurs in about forty per cent of the cases of coronary sclerosis and it may continue throughout the course of the disease as the only manifestation. In a number of the cases, coronary occlusion with myocardial infarction will terminate the issue; in some, paroxysmal dyspnea will finally develop; while in others, there will be a gradual development of progressive cardiac failure. When the latter occurs paroxysmal pain usually ceases.

Progressive myocardial failure is the second way in which coronary sclerosis manifests itself. Progressive myocardial failure occurs in about fifty per cent of the cases of coronary sclerosis. The symptoms are similar to those found in congestive heart failure from any cause. Dyspnea on exertion is a common early symptom and the history of its appearance prior to the development of other symptoms is of importance in differential diagnosis. Except when auricular fibrillation is present, examination commonly reveals little evidence of any cardiac abnormalities. Frequently there is considerable edema and a marked albuminuria. Chronic nephritis is a common diagnosis. This mistake can be avoided by a simple inspection of the urine or at most by an estimation of its specific gravity. The specific gravity is high in uncomplicated myocardial failure and it is always low in clinical chronic glomerulo-nephritis.

The process developing in the myocardium in these cases has been designated myocardosis—an excellent and descriptive term. It is not chronic myocarditis for there are no inflammatory reactions. The coronary arteries are gradually obliterated by the sclerotic changes; the blood supply to the myocardium is reduced; the muscle fibers disintegrate, and are replaced by fibrous tissue. When the sclerosing process develops to a certain point, symptoms of decompensation appear. In over half of the cases death occurs from progressive heart failure, while sudden death occurs in about one-third. In the late stages, paroxysmal dyspnea is not uncommon.

The third clinical type of coronary sclerosis is characterized by attacks of paroxysmal dyspnea. This manifestation occurs in about ten per cent of the cases of coronary sclerosis. It usually occurs in advance cases and is associated with a high mortality rate. The paroxysms frequently appear during the night and they are sometimes mistaken for asthma. In an attack the patient is in extreme distress. A sitting position is assumed or one in which the head and shoulders are forward and resting on some support. Respiration is rapid and markedly labored. The body is bathed in cold perspiration and death may seem imminent. By contrast, examination of the heart usually reveals no notable change. There may be a slight to moderate tachycardia. Pulmonary edema occurs in some cases. The blood pressure is usually elevated. A hypodermic of morphine gives prompt relief in the individual attack but recurrent attacks are to be anticipated. An early death is the rule. It should be mentioned that all attacks of paroxysmal dyspnea are not due to coronary sclerosis.

It is not uncommon to find a marked degree of coronary sclerosis at necropsy in a patient who has had no symptoms of coronary disease during life. This type of case is an example of the so-called occult type of coronary sclerosis.

The most dramatic manifestation of coronary sclerosis is coronary occlusion with myocardial infarction. This catastrophe may occur during the course of either of the three clinical types of coronary sclerosis already described or it may occur as the first intimation of cardiac disease. The sympoms depend upon the size of the artery occluded and upon the rapidity of the closure. When a large artery is suddenly occluded death is immediate. Undoubtedly coronary occlusion is the cause of death in many of the cases reported as instances of death from ptomaine poisoning and acute indigestion.

If a medium size artery is occluded, the clinical picture is that of the usual case of occlusion with resultant infarction. The chief features are prolonged agonizing pain, which is usually retrosternal and which may radiate to the neck, shoulders and upper extremities; shock, with pinched features, and a pale cold skin bathed with perspiration; a low or falling blood pressure; rapid, shallow and sometimes painful respiration; often nausea and vomiting; and in some patients a striking general immobility. Symptoms of a failing myocardium may develop and various disturbances of cardiac rate and rhythm are not uncommon. Within from twelve to twenty-four hours, fever and leucocytosis are present and often a pericardial friction rub is audible.

Libman has pointed out and Willius (10) has emphasized the importance of a study of the number of leucocytes. This simple procedure is a most valuable prognostic guide. The number of leucocytes usually varies from 10,000 to 25,000. The count may be higher, I have seen a case with a count of 45,000. When the progress of the case is satisfactory, the number of leucocytes decreases within a few days. Persistance of the leucocytosis or an increase in the number of leucocytes with or without a preliminary decrease, indicates

a progressive necrosis of the infarcted area in the myocardium or intraventricular thrombosis, or both. Necrosis of the infarct leads to cardiac rupture and immediate death or to an area of myocardial weakness in which a ventricular aneurysm may subsequently develop. An intraventricular thrombus may give rise to emboli which often lodge in vital spots.

All cases of coronary occlusion do not conform to the above description of a typical example. Many bizarre types have been described. The symptoms and signs may be abdominal and suggestive of a surgical emergency. Paroxysmal dyspnea may be the outstanding manifestation. I have seen a patient in whom the only symptom for several hours was pain in the left elbow. That coronary occlusion with myocardial infarction may occur without any striking symptoms is proved by the finding of myocardial scars at autopsy in patients who gave no history of cardiac insult during life.

The above types of cases are interesting and important but they are relatively uncommon. I wish to emphasize the type of case in which all the manifestations are much less dramatic. The pain is prolonged, but it is not so agonizing; the patients may continue their activities for several hours after the onset; shock is absent or of slight degree; the blood pressure is only moderately disturbed; and there may be no rise of temperature and no increase in the number of leucocytes. This type of case is illustrated by a recent patient. The patient awoke at the usual time one morning with a mild substernal pain. He had had no previous symptoms of heart disease but he was known to have occlusive vascular disease of the lower extremities. He went to work as a clerk in a store and continued his duties all day. The pain gradually became more severe during the day, and when the patient had finished his evening meal, he went to bed immediately. Two aspirin tablets taken about eight o'clock, gave sufficient relief to permit sleep. He awoke about ten o'clock with the same pain. It was more severe than before. When I saw him, about ten-thirty that night, he had a moderately severe substernal pain which radiated to the left side of his neck and to his left shoulder. There was a mild degree of shock with a blood pressure of 90 mm. of mercury systolic and 50 diastolic. His skin was moist and cool. Respirations were shallow and painful. The heart rate was 84 and there was no disturbance of rhythm. Early the next morning his temperature was 99.2 degrees F. but it soon became normal and remained normal throughout his illness. The leucocytes numbered 8,500 per cubic millimeter of blood and 70 per cent of them were polymorphonuclears. A pericardial friction rub was audible about twelve hours after he was first seen.

This type of case is relatively common. In some of the patients, the manifestations are much less striking than in this case. It is important to recognize these milder cases for proper regulation of the patients' activities frequently results in a comparatively long and useful life.

I have omitted any discussion of the roentgenologic and electrocardiographic findings in cases of coronary sclerosis, because they do not properly come within the scope of this paper. Suffice it to say, that the *X*-ray will confirm the presence of cardiac hyperthrophy when it exists, which is usually when there is an associated hypertension—and may reveal calcareous deposits in the aorta, and that the electrocardiogram is frequently negative in uncomplicated cases of coronary sclerosis. When there is interference with the conduction system the electro-cardiogram will reveal varying degrees of heart block or of bundle-branch block, and when there is predominant strain of one ventricle—usually a hypertension effect—the electrocardiogram will show an inversion of the T waves (11). In acute coronary occlusion the electrocardiographic changes are often pathognomonic and in some cases it is now possible to determine by a study of these changes (12) whether it is a branch of the right or of the left coronary artery that has been closed.

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ACUTE, PURULENT, TYPHOID MENINGITIS*

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The usual form of typhoid fever is that in which the intestinal symptoms occupy the foreground. In addition to this more or less classical form there are cases in which there are no intestinal symptoms, or if present, are of minor significance and the organisms are localized in other organs of the body, such as the lungs, spleen, kidneys, pleura, meninges.

The case that we have to report deals with the involvement of the meninges in which the involvement of the intestinal tract was not demonstrated clinically and only to a minor degree by necropsy.

Typhoid meningitis is a rare complication of typhoid. However, it is believed that the condition occurs more often than is generally thought and is not recognized, especially when the so-called "typhoid state" is well developed.

Two entirely distinct etiological types of meningitis complicating typhoid fever have been described: one that is caused by the ordinary pyogenic cocci and is secondary to general septecemia or to suppurative processes elsewhere in the body, especially in the bones of the skull; the second type is of great interest and is probably more frequent. It is due to the typhoid bacillus. The cerebrospinal fluid may be serous, seropurulent or purulent and contains the typhoid bacillus in pure culture. In the serous form the meninges may present only microscopic evidences of inflammation. A few cases of typhoid meningitis, without intestinal or other typical lesions have been reported. Meningitis may occur at any stage of the disease. When it occurs during the period of invasion, the meningeal symptoms may overshadow all others.

Maranon says that the meningeal symptoms of typhoid often appear secondary two or three weeks after the disease and less frequently primary, suggesting an extra-abdominal localization of the bacillus.

Panos S. Dukakis, in a survey of the literature says there have been but thirty-three cases reported. He also gives statistics of the medical clinic of the Johns Hopkins Hospital which shows that out of 2,768 cases of typhoid there have been five cases of typhoid meningitis. He reports a case of typhoid meningitis without intestinal symptoms.

Cole studied the meningeal complications of typhoid fever and from pathologic findings, divided the cases into three groups: (1) meningism, (2) serous meningitis, and (3) purulent meningitis. Lumbar puncture is the only means of differentiating these conditions.

"The symptoms of meningeal invasion by the typhoid baeillus are those of acute cerebrospinal meningitis, and they do not differ in essential particulars in the two forms of the disease, serous and purulent. The symptoms are: severe headache, photophobia, vertigo, pain in the spinal region with rigidity and retraction of the head. There are also cutaneous hyperesthesia, pain and tenderness in the muscles with museular twitching and occasionally convulsion. The deep and superficial reflexes are usually increased. Kernig's sign is generally present. The onset may be with chills and facial herpes, the latter being very rarely seen in typhoid fever without meningeal symptoms"—Tice.

Case Reports

Case No. 8677, W. M. M., white female, age 16, entered the Leo N. Levi Memorial Hospital, August 27, 1932, acutely ill with hyperpyrexia and severe pain in the head. Patient's past history is of no importance except that she had repeated attacks of tonsillitis. Five

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days previous to admission to the hospital patient had a severe chill which was followed by high fever. The following day she was apparently well except for pain in head, back of neck and across her back. She was thought to be free of fever though thermometer was not used. Three days before admission patient had another severe chill, more severe than the first and had been confined to bed since, complaining of severe pains in back of neck. On admission to the hospital she was slightly stuporous and delirious, right pupil larger than the left, both responded to light; herpes labialis present; marked rigidity of neck with tenderness on slightest attempt at motion; lungs clear; apex beat, 185 (?); nails cyanotic; reflexes of biceps, triceps and extensors of wrists present; patella not obtainable, no ankle clonus, Kernig suggested in right. Blood pressure: 88-60.

Laboratory Findings: Urine revealed a 2 plus ring of albumin, otherwise negative; white cells, 15,066; granulocytes (juveniles, 19; segmented, 73), total 92, lymphocytes, 7, mononuclears, 1; Schilling, 20 plus.

When patient was first seen a tentative diagnosis of cerebrospinal meningitis was made. Spinal tap was performed immediately and 50 cc. of turbid fluid withdrawn. It was impossible to determine the identity of the organism but pneumococcus was suspected. Orders to carry out "pneumonia treatment" were given. The following day another spinal tap was done to relieve intracranial pressure and to plant cultures. This culture produced a motile bacillus which was agglutinated by anti-typhoid serum. The patient died on the third day.

August 31, 1932: Blood culture positive to typhoid bacillus.

August 31, 1932: Spinal fluid culture positive to typhoid bacillus.

Necropsy (Positive Findings):

Mesentery: Mesenteric glands show a hemorrhagic hyperplasia.

Intestine: Small intestines (Illium) toward ileocecal valve the walls appear thinner than normal with petechial hemorrhagic areas seen scattered through the gut.

Spleen: Enlarged of almost pulpy consistency. Very soft and dark purplish red in color. Acute septic splenitis.

Liver: Liver somewhat enlarged. Weight, 1800 gms. Cut margins drip with blood and of a somewhat clouded appearance.

Brain: On removing the calvarium the blood vessels of supply to the dura appear engorged and congested. An embolus was found blocking the superior longitudinal sinus over the first part of the occipital region. The blood vessels of the pia mater showed a generalized acute inflammatory reaction over the entire brain surface. The arterioles markedly engorged and standing out prominently especially so over both parietal and the occipital regions. There was a definite increase in the spinal fluid which was of a thin purulent character and seen to be filling the sulci between the convolutions more marked over the parietal regions. No definite pseudo-membrane in the pia was found. On opening the pia the spinal fluid escaped as a thin whitish grey pus. The ventricles were filled with this same type of fluid. Small petechial hemorrhages were found in the red nucleus of both hemispheres. The spinal cord was not removed.

Anatomical Diagnosis: Typhoid fever; typhoid changes in the internal organs and intestines; and typhoid meningitis.

Cause of Death: Typhoid fever; typhoid meningitis.

Remarks: The pathological picture seen in this case would suggest that this patient had a typhoid septicemia and meningitis which preceded the intestinal symptoms, as the pathology seen in the intestines was not of sufficient advancement to have made a diagnosis of typhoid fever without the findings of a positive blood culture and positive spinal fluid to typhoid bacillus.

Microscopical Findings:

Spleen: Shows marked hyperplasia of the resticulo endothelial cells, with a diminution of the malpighian corpuscles. Also shows numerous hemorrhagic spots.

Intestinal Lymph Node: Shows a germinal center packed with reticulo endothelial cells, a diminution of lymphoid tissue which is replaced with reticulo endothelial cells; petechial hemorrhages scattered through the glands.

Intestines: The epithelial coat shows marked degeneration; the submucous coat shows lymph nodules packed with reticulo endothelial cells. These cells also extend into the submucosa and the muscular coat of the intestines apparently almost blocking the capillaries.

These pathological findings suggest the diagnosis of typhoid fever.

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MODERN CONCEPTIONS OF PELLAGRA

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Pellagra is of perennial interest to physicians of the South, and like the poor it is with us always. During economic stress and limited diet for the poor the number affected usually increases.

Pellagra is derived from a latin word meaning a "rough skin" and so named because of the characteristic skin lesions. The first authentic appearance of the disease was in southern Spain in 1735, during which time a close observing Spaniard, Gasper Casal, recorded some symptoms that fit the description of the present disease. In the year 1771 the disease assumed the proportion of an epidemic in southern Europe and at that time was given the name of Pellagra by an Italian named Frapolli. The earliest cases in the United States were reported by Dr. John P. Gray of Utica, New York, and Dr. Tyler, of Somerville, Mass., in the year 1835. In 1889, Dr. Bemis, of New Orleans, reported some cases.

Adequate appreciation of the extent of the prevalence of pellagra in the United States was not awakened until the present century. In 1902 Dr. H. F. Harris, of Georgia, reported some cases. By 1908 the disease was becoming so alarming in the South that Doctors Babcock and Watson of Columbia, S. C., went to Italy to study the disease. From 1908 to 1918 it was more or less epidemic in the southern States and in 1917, 170,000 cases were reported.

Etiology

There has been much controversy and difference of opinion concerning the cause of pellagra. Marzari, more than a century ago, expressed the belief that pellagra resulted from the excessive use of maize as a food. Italian investigators later accepted the view that it was caused by eating moldy maize. Two other theories have been advanced to account for its etiology that are worthy of mention; one, that it is caused by an infectious organism; and the other that it is in some way related to a faulty diet lacking in vitamins B and G. The late Joseph Goldberger, of the United States Public Health Service, was an advocate of the faulty diet theory, and did some outstanding research work trying to prove his theory. He found that those fed on low-protein and high carbohydrate diet, with little fruit and vegetables, developed the disease.

In the last experiments of Goldberger and Wheeler, they fed dogs on a diet high in carbohydrates and low in proteins, with no fresh vegetables, milk or butter, and produced a disease that was similar to pellagra. The dogs were cured by feeding them food rich in vitamin G, which they called P. P. or pellagra preventive, factor. This vitamin G is said to be found in fresh milk, butter, fresh meats, vegetables and brewers' yeast.

The Thompson-McFadden Commission found, in their investigation, the disease to be more prevalent in certain sections where surface privies were in general use. After a most scientific and painstaking series of investigations, they came to the conclusion that "no specific cause of pellagra has been recognized, but in all probability it was a specific infectious disease communicable from person to person by means at present unknown."

In a paper read and published in the St. Louis Medical Review, 1911, Dr. S. T. Rucker, Memphis, Tenn., advanced the theory "that pellagra was a gastro-intestinal disease, infections in character, and that the skin lesions and nervous symptoms were secondary and due to the toxic infection." Dr. John L. Jelks, of Memphis, also holds to the infection theory. English investigators believe that the disease is of an infectious nature.

In 1923 Jobling and Arnold found a type of hyphomycetes (fungi-imperfecti) in the excreta of pellagra patients, and found that a photodynamic substance was produced that caused a hypersensitiveness to sunlight. This is an interesting finding, as many observers have noticed that the skin of pellagra patients is hypersensitive to sunlight, causing the skin lesions to appear and aggravating those that are present. None of these etiological theories have been proved and few students of the subject will venture the conclusion that the etiology of pellagra is solved. Medical opinion in the South is still divided, though the weight of evidence at present available supports the theory that pellagra is caused by a dietary deficiency.

It is somewhat surprising that more consideration has not been given the photodynamic factor so prominent in pellagra. Pellagra is essentially a tropical and sub-tropical disease. Endemic and at times epidemic in Egypt, southern Europe and southern United States, only sporadic cases (probably imported) are found in northern Europe and northern United States. Why is a pellagra patient hypersensitive to sunlight? The disease begins in April or May, with symptoms most severe and active during summer. The symptoms will subside or disappear during cold weather of autumn and winter, then reappear the following spring and summer. There is evidence that a hot climate, dietary deficiency and an infectious organism all play a part in causing the syndrome called pellagra.

Pathology

In reviewing the literature on this important aspect of the disease, we find work seems to be limited or neglected. The location of the well known lesions are:

(1) The skin.

(2) The alimentary canal.

(3) The nervous system.

(1) The lesions of the skin are superficial and first appear as an erythema with some edema. Later, blebs may form which are filled with serum at first, then become pusular. In chronic cases the skin shows atrophy. Desquamation is common and in later stages there is a brown pimentation.

(2) Superficial ulceration of buccal surface of mouth is common. The red, clean "beefsteak tongue" is most always present. According to Tuczek and Niles, the intestines show atrophy, with some ulceration of the mucosa of the large intestines. Laboratory findings are:

(a) R. B. C. count around 3,000,000. Hemaglobin 65 to 70 per cent, indicating anemia.

(b) Achlorhydria.

(c) Spinal fluid does not show any material change.

(3) The nervous system, in some cases, shows degeneration of the posterior white columns and a lateral sclerosis. Atrophy of the brain has been noted in chronic pellagrins with a psychosis.

Symptoms

In the early and active stage of pellagra the skin lesions comes early and first looks like a sunburn. Later, in severe cases, blebs and pustules may form. As the disease progresses and become more or less chronic the skin becomes roughened and scaly. The back of the hands (rough knuckles) is a common site for this lesion, though often it extends to the elbow. The face and neck may also have these rough, scaly areas. A symptom often noticed in our patients is a dermatitis ring around the anus, which has a scalded appearance. Diarrhea is an early and frequent symptom. Later it may alternate with constipation. There is a foul odor from bowel movement of pellagra patients that is characteristic and found in no other disease. Sore mouth with buccal ulcers will be found and the tongue will be red and clean, as a rule. Mental symptoms come early. At first they are mild and may be unnoticed, or mistaken for a benign nervous disorder neurasthenic in type. Later the mental symptoms become more severe, and may be mistaken for a depressed type of melancholia.

Pellagra may be easily recognized when all the classic symptoms are present, but it is difficult to diagnose in the early and late stages when only a mild nervous or severe mental symptom is prominent and may mask other symptoms that can be found on close observation. The majority of pellagra patients referred to us come for some nervous or mental disorder.

Treatment

In our experience the treatment that promises most is dietary, with high protein and low carbohydrate intake, and food that is rich

in vitamins A, B and G. These foods are milk, eggs, lean meats, vegetables and fruits; brewers' yeast, rich in vitamin B, may be added to this diet.

Bismuth and paregoric is recommended for the diarrhea. We have had good results in controlling the diarrhea by giving lactos in buttermilk three times a day. Arsenic in some form has been largely used but, in our hands, it has been disappointing. Recently English and Egyptian physicians have claimed sodium-thiosulphate to be a curative agent.

The prevention of pellagra is a most important consideration and we will close by quoting from an article by Wheeler and Sebrell (Journal American Medical Association, July 9, 1932): "The home surrounded by evidence of a good garden, a cow or two, a few pigs and some poultry may as well be passed up, for the chances are less than one in a thousand that pellagra will not be found. On the other hand, the home surrounded by last year's cotton patch will bear watching."

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The 58th Annual Session of the Arkansas Medical Society will be held

May 2, 3, 4, 1933

Hot Springs National Park

THIRD COUNCIL DISTRICT MEETING

The Third District Medical Society, comprising the counties of Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff, held its meeting at Wynne, April 18, at 3:00 p. m.

Officers of the Society are: President, L. E. Biles, Augusta; Vice-President, Thomas Wilson, Wynne; Secretary-Treasurer, J. O. Rush, Forrest City; Counsilor, M. C. John, Stuttgart.

The program was as follows:

Address of Welcome by Dr. L. H. Lipsey, Wynne.

Response by Dr. M. C. John, Stuttgart.

Reading of Minutes of last meeting.

Scientific Program:

"Medical Abdomen," by Dr. S. F. Hoge, Little Rock.

Discussion opened by Dr. L. E. Biles, Augusta.

"Renal Infections Complicating Pregnancy," by Dr. H. Fay H. Jones, Little Rock.

Discussion opened by Dr. S. B. Hinkle, Little Rock.

"Feeding in Diarrhoea in Children," by Dr. W. R. Blue, Memphis, Tenn.

Discussion opened by Dr. J. O. Rush, Forrest City.

"Some Aspects in the Treatment of Diseases of the Heart," by Dr. Lyle Motley, Memphis, Tenn.

Dinner was served in the Basement of the Methodist Church at 6:30 P. M.

Evening Session.

"Early Diagnosis of Tuberculosis and Its Treatment by Special Remedies," by Dr. Roswell M. Flack, Memphis, Tenn.

Discussion opened by Dr. Otis S. Warr, Memphis, Tenn.

"Diagnosis via Stool Examination," by Dr. J. A. McIntosh, Memphis, Tenn.

Discussion by Drs. H. B. Evert, C. D. Allen and Abe Blake, all of Memphis.

THE JOURNAL
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

MEDICAL LIEN LAW FOR ARKANSAS

To enable physicians, nurses, and hospitals to obtain on their own initiative security for the payment of bills due from patients treated because of injuries suffered through the fault of some other person, the recent Arkansas Legislature enacted into law through which a physician, nurse or hospital who renders service to such a patient can establish a lien for the value of the services rendered on any claim the patient may have against the person by whom he has been injured. This law was known as Senate Bill 361, introduced by Senator Lawrence E. Mitchell of Prescott, supported by our own legal advisor, Hon. Peter Deisch, and the committee on Medical Legislation, headed by Dr. Val Parmley.

The bill has been signed by Governor Futrell and is now known as Act 130.

For information and guidance in securing the draft of the act we are indebted to the Bureau of Legal Medicine and Legislation of the American Medical Association.

Copy of the law follows:

A Bill For An Act To Be Entitled: "An Act Concerning Liens for Money Due Physicians, Dentists, Nurses, and Hospitals, for Services Rendered for the Relief and Cure of Injuries Caused by the Fault or Neglect of Other Persons, on Claims and Rights of Actions Accruing to Such Injured Persons by Reason of Such Injuries."

Be It Enacted by the General Assembly of the State of Arkansas:

Sections 1. (*Definitions*).

In this act.

(1) "Person" means a natural person, a partnership, an association, and a corporation.

(2) "Practitioner" means a person licensed to treat human ailments under the provisions of Sections 8239 to 8241, of Crawford & Moses' Digest of the Statutes of Arkansas.

(3) "Patient" means a person injured through the fault or neglect of another person, for the relief or cure of whose injury a practitioner, nurse, or hospital renders service.

(4) "Tort feasor" means a person through whose fault or neglect a person is injured.

(5) "Insurer" means a person that by a contract of insurance has undertaken to indemnify a patient against loss through injury resulting from accident or accidental means.

(6) "Hospital" means a person that maintains an establishment in which sick and injured persons are given medical and surgical care.

(7) "Claim" means, unless the context otherwise requires, the claim of a patient (a) for damages from a tort feasor or (b) for benefits from an insurer.

(8) "Injury" means impairment of bodily, nervous, or mental integrity or health.

(9) "Service" means personal service, and food, lodging, ambulance service, medical supplies and appliances, and whatever else is reasonably necessary for the care, treatment, and maintenance of a patient.

Section 2. (*Scope of Lien*).

On compliance with the requirements of this act, a practitioner, a nurse, and a hospital and each of them shall have a lien:

(a) For the value of the service rendered and to be rendered by such practitioner, nurse, or hospital to a patient, at the express or implied request of that patient or of someone acting on his behalf, for the relief and cure of an injury suffered through the fault or neglect of someone other than the patient himself,

(b) On any claim, right of action, and money to which the patient is entitled because of that injury, and to costs and attorneys' fees incurred in enforcing that lien.

Section 3. (*How Lien Is Established*).

In order to establish a lien under this act, a practitioner, nurse, or hospital shall comply with the following conditions:

(1) (*Notice Required*):

(a) The practitioner, nurse, or hospital shall serve on the patient a written notice of his claim of lien and shall serve a copy of that notice on the tort feasor or on the insurer (if there be any), or, at the discretion of the practitioner, nurse, or hospital, or both; and he shall file in the office of the clerk of the circuit court in the county in which his professional, nursing, or hospital service has been or is being rendered, a copy of the notice so served, authenticated by an affidavit to show that the notice and copies of it have been served as required by this act. This notice may be served and recorded at any time while service is being rendered and at any time after the discontinuance of service so long as the claim of the practitioner, nurse, or hospital for compensation for service is not barred by the statute of limitations.

(b) If to the knowledge of the practitioner, nurse, or hospital, the patient against whose claim or right of action it is desired to establish a lien has instituted an action in any court in Arkansas to enforce his claim against the tort feasor responsible for his injury, or against any insurer by which he was insured against loss through injury due to accident or accidental means, the practitioner, nurse, or hospital may, in his discretion, in lieu of or in addition to serving notice of his claim and recording such notice, as authorized by the preceding paragraph, file a notice of his claim, duly authenticated under oath, in the court in which such action is pending; and the filing of the notice of such claim shall be notice thereof to all parties to the action, without the serving of further notice or the recording of the copy of any notice in the office of the clerk of the circuit court.

(2) *Contents of Notice.*

The notice required by this section shall show so far as is known to the practitioner, nurse, or hospital on whose behalf it is filed or served,

(a) the name and address of the tort feasor and, if a lien is claimed against an insurer, then the name and address of that insurer;

(b) the name of the patient, his usual address, and his whereabouts when the notice is served, if elsewhere than at his usual address;

(c) the name and address of the person claiming the lien, and whether he claims as a practitioner, nurse, or hospital;

(d) the time when, place where, and circumstances under which the alleged fault or neglect of the tort feasor occurred, and the nature of the injury; and

(e) if the service of the practitioner, nurse, or hospital has been completed, the amount for which his lien is claimed.

The notice shall be supported by an affidavit by the practitioner, nurse, or hospital, showing that the facts stated of affiant's own knowledge are true and that the facts stated on information and belief, he believes to be true.

If the professional, nursing, or hospital service on which the claim of lien is based has not been completed when notice of the claim of lien is served and the amount for which a lien is claimed is not stated in the notice, then the practitioner, nurse, or hospital on whose behalf the notice has been served shall, within sixty (60) days after the termination of his service, serve a supplementary notice on each person previously notified, and file a notice in the court in which the previous notice was filed, showing the amount claimed under the lien

(3) *Method of Service of Notice.*

Any notice required by this act to be served shall be deemed to have been served.

(a) If delivered to the person on whom it is to be served, or left at his usual place of business or residence with some person of mature years employed or dwelling there; or

(b) If delivered by registered mail at the last known address of the person to be notified, either within or without the State of Arkansas, as shown by the receipt returned by the Postoffice Department and by an affidavit by an affiant having personal knowledge of the facts, showing that the notice herein required to be served was enclosed in the letter for which the receipt was returned, when that letter was deposited in the mail.

(4) *Amendatory and Supplementary Notices.*

The fact that a practitioner, nurse, or hospital has filed a notice of the lien as authorized by this act shall not prevent his filing amendatory or supplementary notices of liens subsequently; but every amendatory and supplementary notice shall be served and filed in the same manner as the original notice.

Section 4. *Enforcement of Lien in Pending Action.*

If a patient has instituted an action in any court in Arkansas to enforce his claim against the tort feasor through whose fault or neglect he was injured, or against any insurer by which he was insured against loss through accident or accidental means, and a practitioner, nurse, or hospital has filed in the court in which the action is pending a notice of his claim of lien, as authorized by this act, the court before which the action is pending shall have jurisdiction with respect to that claim of lien and shall embody in its judgment such an award with respect thereto as the evidence warrants.

Section 5. *Settlement of Patient's Claim Without Settlement of Lien Forbidden.*

A tort feasor and an insurer, and each of them, who has been notified, as authorized by this act, of a claim of lien against any claim or right of action that a patient has against such tort feasor or insurer by reason of an injury caused by the fault or neglect of a tort feasor, shall not, within sixty (60) days after the service of such notice, nor at any time after a copy of that notice has been recorded in the office of the clerk of the circuit court of the county in which the professional, nursing, or hospital service was rendered, pay to the patient, either directly or indirectly, any money, or deliver to him, either directly or indirectly, anything of value, in settlement or part settlement of the patient's claim or right of action, without having previously

(a) paid to the practitioner, nurse, or hospital that gave notice of such claim of lien, the amount claimed under it; or

(b) received a written release of the claim of lien from the practitioner, nurse, or hospital that gave notice of it, except as otherwise authorized by this act.

A tort feasor and an insured, and either of them, that has been notified by a practitioner, nurse, or hospital of a claim of lien under this act, and who, directly or indirectly, otherwise than as is authorized by this act, pays to the patient any money or delivers to him anything of value as a settlement or compromise of the patient's claim arising out of the injury done to him, shall be liable to such practitioner, nurse, or hospital for the money value of the service rendered by such practitioner, nurse, or hospital, in an amount not in excess of the amount to which the patient was entitled from the tort feasor or insurer because of the injury.

If the amount for which a tort feasor or an insurer is liable to the patient on account of his injury is not sufficient to pay in full the claims of all practitioners, nurses, and hospitals that rendered services in the case and who have given notices of liens, each such practitioner, nurse, and hospital shall share in the amount payable to the patient, in the proportion that his claim bears to the total amount claimed by all other such practitioners, nurses, and hospitals.

Section 6. (*Payment of Damages or Insurance into Court*).

(1) Any court having jurisdiction in an action by a patient injured through the fault or neglect of another person, against the person whose fault or neglect caused the injury or against an insurer obligated by reason of that injury, and if an action has not been begun, then any court having authority to entertain an action under the circumstances stated above, if and when an action is brought, may, on petition or other procedure conformable to the rules of practice of the court, by the tort feasor or by the insurer who has been notified of a claim of lien under the provisions of this act, receive and impound

(a) the amount claimed by any practitioner, nurse, or hospital under such lien, or

(b) if no amount is named in the notice of the claim of lien that has been served, then the entire amount claimed by the patient from the tort feasor or from the insurer, or any less amount that the court deems sufficient to pay the amount claimed under such claims of lien or liens as have been served.

(2) The court may,

(a) on joint motion or petition of the patient and the practitioner or practitioners, nurse or nurses, and hospital or hospitals claiming interests in the money so paid into court, or,

(b) on judgment by any competent court, pay or distribute such money in accordance with that petition, motion, or judgment and pay any remaining balance to the person by whom the money was deposited.

Section 7. (*Default of Practitioner, Nurse, or Hospital in Enforcing Lien*).

If at the expiration of sixty days immediately following the day on which the most recent notice, amendatory notice, or supplementary notice of a claim of lien was filed in the office of the clerk of the circuit court, as authorized by this act, and

If in any event immediately on the expiration of the period during which the practitioner, nurse, or hospital can enter action to enforce his claim against the patient for compensation for service rendered, the lien remains unsatisfied and unreleased, and no suit by the practitioner, nurse, or hospital by which notice of such lien was filed, to enforce that lien, is pending in any court, the lien shall be void and of no effect.

Any patient against whose claim or right of action any such void lien exists may enforce that claim or right of action discharged from that lien, on delivering to the tort feasor or insurer an affidavit showing that no action is pending against the affiant to enforce the lien claimed by the practitioner, nurse, or hospital; and on filing a copy of that affidavit with the clerk of the circuit court in whose office notice of the lien was originally filed, the clerk shall enter on his docket and file a notation to show that the lien has lapsed and is void.

If the amount claimed under any lien has been paid into court as authorized by this act, remains in the custody of the court after the lien has become void, on application by the tort feasor or the insurer, by which the money was so paid, supported by a copy of the record of the circuit court showing that the lien has lapsed, the court may return the money to the person by whom it was deposited and give him judgment against the lienor for interest on the money during the time it was on deposit and for costs and a reasonable counsel fee.

Any person who, in order to obtain the release of an alleged lapsed lien, makes a false affidavit and delivers a copy of it to any tort feasor or insurer, or files a copy of any such affidavit in the office of the clerk of the circuit court, shall be guilty of perjury and subject to the penalties prescribed for that offense.

If at the expiration of the sixty (60) days period named above, an action is pending by the practitioner, nurse, or hospital to enforce a claim of lien filed by him, the lien shall continue in full force and effect during the pendency of that suit, unless released by the practitioner, nurse, or hospital by whom the claim was filed.

Section 8. (*Waiver or Release of Claim of Lien Void*).

A patient who has been notified by a practitioner, nurse, or hospital of a claim of lien on any claim or right of action that the patient has because of the injury for which service was rendered, shall not waive or release that claim, or any part of it, unless

(1) the amount claimed by the practitioner, nurse, or hospital, under the lien, has been paid; or

(2) the practitioner, nurse, or hospital has in writing released his lien.

Any waiver or release given contrary to the provisions of this act shall be void and of no effect.

Section 9. (*Release to be Given*).

When a lien has been satisfied or waived, the practitioner, nurse, or hospital that established or waived it shall, on written demand and at the expense of the patient, or the person by whom the patient was injured, or by the insurer obligated by reason of such injury, give a written release, duly acknowledged before a justice of the peace or notary public. Any such practitioner, nurse, or hospital that refuses or fails under the circumstances stated, for a period of five days or more after a written demand is made for a release, to execute and deliver it, shall be liable to the demandant for any injury or damage that results from such refusal or failure, and in any event he shall forfeit to the demandant the sum of $25.00 which may be recovered in any action for damages because of such failure, or in an action of debt before a justice of the peace, as the circumstances of the case require.

Section 10. (*Enforcement of Lien*).

A practitioner, nurse, or hospital that has perfected a lien under the provisions of this act, to secure the payment of a debt for service rendered, may enforce that lien by any proper action against the patient, the tort feasor, and the insurer, jointly or severally, in any court of competent jurisdiction; but no such action shall be begun after action on the debt itself is barred by the statute of limitations. The plaintiff in any such case shall make any and all persons having interests in the subject matter of the action, of whose interests he has knowledge, parties defendant. Any person having an interest in the subject matter of the action who is not made a party to it, may, with the consent of the court, become a party in order to protect his interest. Persons having interest in the subject matter of the action include, within the meaning of this section, all persons authorized by this act to establish liens to secure their interests, those whose claims against the patient are as well as those whose claims against the patient are not due at the time of the commencement of the action.

Any two or more persons having liens on the same claim or right of action of any patient may join in bringing action setting forth their respective rights in their pleading. An action to which any practitioner, nurse, or hospital having a lien on the subject matter is a party, shall not be dismissed without his consent.

Section 11. (*Liens Assignable.*)

All liens or claims of liens that accrue to any practitioner, nurse, or hospital under this act are assignable. Proceedings to enforce assigned liens or claims of liens may be maintained by and in the name of the assignee. The assignee shall have as full and complete power to enforce the lien or claim of lien assigned to him as if proceedings to that end were taken under this act, by and in the name of the assignor.

Section 12. (*Subrogation of Right to Lien*).

Any person who, with the consent of a patient injured through the fault or neglect of another person, pays a practitioner, nurse, or hospital, the amount due for service to that patient, shall be subrogated to the rights of the payee with respect to the establishment and enforcement of a lien under this act.

Section 13. (*Survival of Liens*).

If any person, because of minority, mental defect, death, or other legal disability, cannot exercise any right conferred on him by this act or discharge any duty imposed on him by it, that right may be exercised, and that duty shall be discharged by his father, mother, guardian, executor, or administrator, as the circumstances of the case require.

Section 14. (*Records of Liens*).

The clerk of the circuit court in each county shall maintain at the expense of the county a file designated and labeled "Medical, Nursing, and Hospital Liens," and an appropriate and sufficient book record and index of such liens, properly labeled. He shall make a record in said book of notices of liens filed in the order in which they are filed, noting therein the names and addresses of patients of practitioners, nurses, hospitals, and other persons on whose behalf a notice of lien has been filed; and of tort feasors and insurers.

On the presentation of a release of any lien, the clerk of the circuit court of the county in which said lien is filed and recorded shall note on the file and in the record the date when such release was filed, and he shall note on the release the fact that it has

been so recorded. A release so noted and the records in the office of the clerk of the circuit court shall, either of them be *prima facie* evidence of the release of the lien.

The clerk of the circuit court shall be entitled to collect not more than fifty cents (50c) for the filing, recording, and indexing of each lien, and not more than fifty cents (50c) for the filing of the release of any lien and noting on the record and on the release the fact that the release has been so filed.

Section 15. (*Constitutionality*).

If any provision of this act, or the application of any provision of it to any person or circumstances, is held to be invalid such invalidity shall not affect other provisions or applications of the act that can be given effect without the invalid provision or application, and to this end the provisions of this act are declared to be severable.

Section 16. (*Short Title*).

This act may be cited as the "Medical, Nursing, and Hospital Lien Act."

Section 17. (*Date of Taking Effect*).

All laws and parts of laws in conflict herewith are hereby repealed and this act shall take effect and be in force from and after its passage and approval.

Personal and News Items

Dr. J. R. Kitley was re-elected mayor of Mayflower.

Dr. A. J. Dunklin of Clarendon has moved to Arkadelphia.

Dr. and Mrs. Wm. R. Brooksher, Jr., Fort Smith, announce the arrival of a son, William Riley, III, March 3, 1933.

Dr. F. C. Maguire of Augusta was appointed by Governor Futrell as coroner of Woodruff County.

Dr. and Mrs. Martin C. Hawkins, Jr., Little Rock, have moved to Searcy, where Dr. Hawkins will be associated with Dr. A. G. Harrison.

Governor Futrell appointed Dr. A. C. Kolb of Hope as a member of the new board of control for the State Hospital for Nervous Diseases.

Dr. E. H. White, Secretary of the Pulaski County Medical Society, has moved his office from the eighth floor to suite 941 of the Donaghey Building.

Dr. Charles Arkebauer, as chief of the medical staff, succeeds Dr. L. R. Brown, superintendent, and Dr. R. A. Rowland, El Dorado, succeeds Dr. A. R. Holloway, at the State Hospital for Nervous Diseases, Little Rock.

Dr. L. C. Aday of Little Rock, coronor of Pulaski County, born and reared at Marshall, has informed the faculty of the Marshall High school that he will present a ten dollar gold piece to the most worthy member of this year's graduating class.

The Tri-County Medical Society, composed of Ouachita, Union and Columbia counties, held their spring meeting, April 11, at Magnolia. Mr. Dave McKay of Magnolia delivered the address of welcome. Dr. Guy Caldwell and Dr. John B. Younger of Shreveport, and Dr. George W. Parson of Texarkana, presented papers.

Dr. S. R. Crawford, chief of the Medical and Surgical Unit of the Veterans Administration in Little Rock, has been designated to take a post-graduate course at the administration's diagnosis center at Palo Alto, Calif., it was announced by James A. Winn, manager. Designations of the type received by Dr. Crawford are considered recognition for outstanding service. Dr. Crawford will begin his studies at Palo Alto April 24, and probably will remain there four months.

The Jefferson County Medical Society met March 7, 1933. A number of interesting clinical cases were presented and freely discussed. In keeping with the policy of the society that every doctor who has been a continuous member for fifteen years becomes a life member upon reaching the age of sixty-five, we recommend the following for honorary membership to the State societies, also rule that they be given full privilege of both organizations. Drs. J. M. Lemons and J. W. John were declared life members. The other life members are Drs. A. W. Troupe, J. W. Scales, O. C. Hankinson and W. H. Blankenship.

We have accepted an order for twelve pages (six 2-page spreads) for Camel cigarettes to begin with our May issue and continue through the October number.

The copy is well illustrated and well written. It advertises the tobacco solely on its merits. We have not, previously to the depression, accepted cigarette advertising, due in part to objectionable advertising copy. The Camel advertising seems to meet all requirements in these respects.

At a recent meeting of the Board of Trustees of the American Medical Association the question of accepting cigarette advertising for the State Medical Journals was discussed. Two State editors, Dr. Warnshuis, speaker of the House of Delegates and long time editor of the Michigan Journal; and Dr. Allen H. Bunce, a Trustee and editor of the Georgia State Medical Journal, said they would accept it for their publications.

This order comes through the Co-operative Medical Advertising Bureau of the American Medical Association, and the explanation is made in advance so that our members fully understand the motive.

RESOLUTION

On the death of G. A. Warren, M. D., which occurred on December 26, 1932.

Mr. President and Fellow Members of the Lawrence County Medical Society:

Dr. G. A. Warren, our friend and honored associate, after a long and useful career among us has paid the debt of nature.

Dr. G. A. Warren, had been a member of this society for over thirty years. During his active life as a physician, he was always honored and respected by his associates as the highest type of ethical physician. It was always a pleasure to be associated with him professionally. He never asked nor expected personal agrandisement. He was always agreeable under all circumstances, in his relations with his brother physicians. He gave of his professional talents and energy, especially to the young men coming up in the profession.

He always responded to a call of the sick or afflicted without question of remuneration. His field of activity covered a large territory. He always responded to these hardships of his profession, without complaint. He was a Christian gentleman of the highest type, honored and loved by his church and church affiliations. He loved the fellowship of his fellowman.

We feel the society has lost one of its brightest stars in the galaxy of distinguished men, who have been its members. The community one of its best citizens.

We extend our sympathy to the bereaved wife, upon the loss of a loving husband, to the children of the loss of a kind and understanding father.

Respectfully submitted,

John C. Hughes,
Thomas C. Neece,
W. W. Hatcher,
Committee.

Auxiliary Notes

The March meeting of the Woman's Auxiliary to the Pulaski County Medical Society was held at the home of Mrs. R. L. Saxon, with Mrs. Pat Murphey, president, presiding. Members voted to become an associate member of the Blind Woman's Industrial Home, Inc., and to reduce the Auxiliary dues.

Little Marie Belle Saxon, daughter of the hostess, played as piano numbers, "Fra Diablo" and "A Russian Dance." Little Ora Ann Drennen, in Colonial costume, gave a reading, "My Grandmother's Quilt."

Assistant hostesses were: Mrs. C. E. Oates, Mrs. H. R. Allen, Mrs. J. B. Crawford and Mrs. Alan Cazort.

The Woman's Auxiliary to the Bowie-Miller Counties Medical Society was entertained February 24, by Mrs. H. H. Smiley, Mrs. W. K. Read, Mrs. W. L. Kitchens and Mrs. T. F. Kittrell at the home of Mrs. Smiley.

The following officers were elected: Mrs. C. E. Kitchens, president; Mrs. Decker Smith, president-elect; Mrs. R. R. Kirkpatriek, first vice-president; Mrs. J. F. Williams, second vice-president; Mrs. Albert Mann, third vice-president; Mrs. H. R. Webster, fourth vice-president; Mrs. N. B. Daniel, recording secretary; Mrs. George W. Parson, corresponding secretary; Mrs. Roy Baskett, treasurer; Mrs E. A. Hawley, publicity secretary; Mrs. E. M. Watts, parliamentarian.

The program consisted of a digest of magazine topics. Mrs. George W. Parson gave "Important Facts Set Forth in the Final Report of the Cost of Medical Care," with

excerpts of newspaper comment. Mrs. Albert Mann's topic was "Quelling the Quacks." Dr. Frances Spinks spoke on "The Care of Skin."

There were thirty-three members present.

Obituary

SIMS, JOHN LESTER—Dr. J. L. Sims, of Harrison, aged 85, died October 23, 1932. Dr. Sims was born near Harrison, April 18, 1847. He graduated from the Missouri Medical College in 1880.

He was active in the practice of medicine for twenty years, after which he retired and became a local financier. He was for many years a loyal member of the Boone County Medical Society, being active until the time of his death.

EIGHTH COUNCILOR DISTRICT MEETING

The Eighth Councilor District of the Arkansas Medical Society, composed of Faulkner, Pulaski, Conway, Perry, Yell, Pope and Johnson counties, met in Clarksville March 15, with 75 members and guests present.

The morning session was featured by an operative clinic, held at the Johnson County hospital, where four operations were performed. At the afternoon session, a scientific program was held at the F. A. U. hall, Dr. M. J. Kilbury of Little Rock presiding. Dr. Fred Krock of Fort Smith, guest speaker, lectured on indications for and the use of blood tranfusion. Dr. Alan Cazort of Little Rock read a paper on allergic diseases. Dr. Robert Hood of Russellville spoke on infant mortality.

Lunch was served at the First Methodist Church by the Matrons' Auxiliary of the church. Dr. Earle Hunt, chairman of the Arrangements Committee, was toastmaster. The next meeting of the society will be held in September at Little Rock.

Officers of the district are: President, Dr. M. J. Kilbury, Little Rock; vice-president, Dr. L. Gardner of Russellville and secretary-treasurer, Dr. Clyde Rogers of Little Rock. Councilor, Dr. M. E. McCaskill, Little Rock.

NEW STATE HEALTH OFFICER SELECTED

Dr. W. B. Grayson of McGehee to Succeed Dr. C. W. Garrison, June 13

Dr. W. B. Grayson of McGehee was elected state health officer and secretary of the State Board of Health by that board April 10 to succeed Dr. C. W. Garrison at the expiration of his term, June 13.

Dr. Garrison is the oldest appointive department head in Arkansas and one of the oldest state health officers in the United States in point of service. He has held the office 18 years, having been appointed two years after it was created in 1913.

This meeting was the first since three new members of the board were appointed several weeks ago by Governor Futrell. The new members are: Dr. W. G. Hodges, Malvern; Dr. Thomas Wilson, Wynne, and Dr. W. F. Smith, Little Rock. Other members are: Dr. E. D. McKnight, Brinkley, President; Dr. L. D. Duncan, Waldron; Dr. J. D. Gladden, Western Grove and Dr. F. O. Mahony, El Dorado.

The board will hold a special meeting June 12 to discuss public health matters with the retiring and the incoming health officer.

The board also adopted a resolution requesting the governor to consider making an allotment from the governor's emergency fund to pay registrars during the next two years, the legislature having failed to make an appropriation for that purpose.

County Societies

BOONE COUNTY

(Reported by W. H. Poynor, Sec.)

The Boone County Medical Society met in Harrison March 28, in the office of Dr. Poynor. Members present: D. E. Evans, J. H. Fowler, L. M. Weast, W. L. Watkins, J. G. Gladden, D. L. Owens, W. T. Moore, F. B. Kirby, and W. H. Poynor. Visitor, Dr. George Kirby Sims of Harrison.

The minutes of the previous meeting were read and approved.

Drs. George Kirby Sims of Harrison and A. V. Adams of Yellville presented petitions for membership and were accepted.

A round table discussion on the betterment of the medical profession as well as the general public and the society was held, and the society went on record as heartily endorsing the sentiment expressed in the resolution passed by the Benton County Medical Society in its regular meeting of December 8, 1932, and appearing in the March issue of the Journal of the Arkansas Medical Society. The society further expressed itself as considering the condition as described to have existed for a longer period than the past year.

MONROE COUNTY

(Reported by C. A. Henry, Sec.)

The business of the meeting was for the election of officers for the ensuing year. After some discussion, a motion was unanimously adopted to retain the present officers for another year. The officers are: President, F. S. Dozier, Brinkley; vice-president, A. H. Gilbrech, Clarendon; secretary-treasurer, C. A. Henry, Clarendon; delegate to the State Convention, A. J. Dunklin, Clarendon; alternate, E. D. McKnight, Brinkley: censor for three years, P. E. Terry, Holly Grove.

The scientific program scheduled for this meeting was postponed until the second Tuesday in April.

SEBASTIAN COUNTY

(Reported by Jas. W. Amis, Sec.)

On March 14, the Sebastian County Medical Society held a joint meeting with the Muskogee County Medical Society of Oklahoma, in Fort Smith. President, S. J. Wolfermann, presided. The meeting was preceded by a banquet given in the Ward Hotel. Fifty physicians were in attendance.

The following program was presented by the Muskogee physicians:

"Childhood Tuberculosis" by Dr. J. T. Woodburn.

"Epidemiology of Ringworm" by Dr. J. F. Campbell.

"Goiter—Diagnosis and Treatment" by Dr. J. H. White.

"The Use of Calcium in Pregnancy" by Dr. C. E. White.

UNION COUNTY

(Reported by W. L. Newton, Sec.)

The Union County Medical Society met in El Dorado, at the Warner Brown Nurses' Home, March 7, 1933.

Members present: E. J. Munn, J. A. Moore, David Levine, G. D. Murphy, M. V. Russell, H. H. Niehuss, A. D. Cathey, J. M. Smith, J. G. Mitchell, W. L. Newton.

New Committees appointed by the president were:

Program Committee—Dr. J. A. Moore, Dr. M. V. Russell and Dr. L. A. Purifoy.

Credentials Committee—Dr. David Levine, Dr. G. D. Murphy and Dr. J. B. Wharton.

A discussion about the monthly report of the Union County Medical Society to the Journal of the Arkansas Medical Society was entered into by Mrs. Mitchell and Niehuss. A motion was made by Dr. Moore and seconded by Dr. Mitchell to have the secretary send in a report of each meeting to the Journal.

Program was as follows:

"Influenza With Some Complications," by Dr. J. A. Moore. Discussed by Drs. Levine, Russell, Murphy, Mitchell and Smith.

"Ectopic Pregnancy," by Dr. A. D. Cathey. Discussed by Drs. Murphy, Moore and Levine.

Dr. Levine who has been in New York for the last six months, was called upon by the President to give a report of his absence.

STET! STET!

Astounding typographical blunder observed by a colleague in the Columbus (Ohio) Citizen

The senator became suddenly ill while the Gulf Coast Limited was approaching Wilson. A doctor came aboard the train at Wilson, but the senator already was dead.

Physicians attributed his death to a "heart condition or a hemorrhage of the drain."

—*Tonics and Sedatives, Jour., A. M. A.*

Preliminary Program & Announcements

OF THE

FIFTY-EIGHTH ANNUAL SESSION OF THE

ARKANSAS MEDICAL SOCIETY

HOT SPRINGS

May 2, 3, 4, 1933

HEADQUARTERS—ARLINGTON HOTEL

OFFICERS

President—Will H. Mock, Prairie Grove.

President-Elect—L. J. Kosminsky, Texarkana.

First Vice-President—S. B. Hinkle, Little Rock.

Second Vice-President—Grace Tankersley, Pine Bluff.

Third Vice-President—Chas. S. Holt, Fort Smith.

COUNCILORS AND COUNCILOR DISTRICTS

First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties. Councilor, W. M. Majors, Paragould. Term of office expires 1933.

Second District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White Counties. Councilor, L. T. Evans, Batesville. Term of office expires 1934.

Third District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, M. C. John, Stuttgart. Term of office expires 1933.

Fourth District—Ashley, Bradley, Chicot, Cleveland, Drew, Desha, Jefferson and Lincoln Counties. Councilor, H. T. Smith, McGehee. Term of office expires 1934.

Fifth District—Calhoun, Columbia, Dallas, LaFayette, Ouachita and Union Counties. Councilor, L. L. Purifoy, El Dorado. Term of office expires 1933.

Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier Counties. Councilor, A. C. Kolb, Hope. Term of office expires 1934.

Seventh District—Clark, Garland, Grant, Hot Spring, Montgomery, Saline and Scott Counties. Councilor, Dewell Gann, Sr., Benton. Term of office expires 1933.

Eighth District — Conway, Faulkner, Johnson, Perry, Pope, Pulaski and Yell Counties. Councilor, M. E. McCaskill, Little Rock. Term of office expires 1934.

Ninth District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, D. L. Owens, Harrison. Term of office expires 1933.

Tenth District—Benton, Crawford, Franklin, Logan, Madison, Sebastian and Washington Counties. Councilor, S. J. Wolfermann, Fort Smith. Term of office expires 1934.

Delegates to the A. M. A.—William R. Bathurst, Little Rock (1933), D. A. Rhinehart, Little Rock (1934).

COMMITTEES

SCIENTIFIC PROGRAM

R. J. Calcote, Chairman, Little Rock; R. B. Robins, Camden; Wm. R. Bathurst, Little Rock.

SCIENTIFIC EXHIBIT

Geo. B. Fletcher, Chairman, Hot Springs; W. E. Gray, Jr., Little Rock; Fred Krock, Fort Smith.

MEDICAL LEGISLATION

L. V. Parmley, Chairman, Little Rock; M. L. Norwood, Lockesburg; J. H. Sanderlin, Little Rock; E. J. Horner, Jonesboro; C. S. Holt, Fort Smith; L. M. Lile, Hope; A. S. Buchanan, Prescott.

HEALTH AND PUBLIC INSTRUCTION

C. W. Garrison, Chairman, Little Rock; W. W. Verser, Harrisburg; Clyde McNeil, Rogers; J. H. Fowler, Harrison; D. E. White, El Dorado.

NECROLOGY

F. Vinsonhaler, Chairman, Little Rock; W. T. Wootton, Hot Springs; Robt. Caldwell, Little Rock; J. M. Lemons, Pine Bluff.

CANCER CONTROL

Dewell Gann, Jr., Chairman, Little Rock; D. W. Goldstein, Fort Smith; J. R. Williams, Siloam Springs; A. G. Harrison, Searcy; Thos. Douglass, Ozark.

CONSTITUTION AND BY-LAWS

D. A. Rhinehart, Chairman, Little Rock; E. F. Ellis, Fayetteville; A. F. Hoge, Fort Smith; O. L. Williamson, Marianna; P. H. Phillips, Ashdown.

HOSPITALS

W. A. Snodgrass, Chairman, Little Rock; H. H. Niehuss, El Dorado; T. F. Kittrell, Texarkana; W. R. Brooksher, Jr., Fort Smith; J. S. Wilson, Monticello.

PUBLICITY

J. A. Foltz, Chairman, Fort Smith; M. E. McCaskill, Little Rock; H. King Wade, Hot Springs; J. F. John, Eureka Springs; M. S. Dibrell, Van Buren.

CHILD WELFARE

H. T. Smith, Chairman, McGehee; W. M. Majors, Paragould; W. W. York, Ashdown; P. L. Hathcock, Fayetteville; W. T. Lowe, Pine Bluff.

DISEASES OF THE HEART

A. A. Blair, Chairman, Fort Smith; A. G. Sullivan, Hot Springs; A. C. Shipp, Little Rock; N. F. Weny, Little Rock; Sam J. Allbright, Searcy.

LOCAL COMMITTEES

General Chairman—Grayson E. Tarkington

RECEPTION

O. E. Biggs, Chairman; Geo. B. Fletcher, J. H. Chesnutt, W. M. Proctor, A. H. Tribble.

PUBLICITY

Leonard R. Ellis, Chairman; J. P. Randolph.

FINANCE

S. D. Weil, Chairman; O. H. King, J. S. Stell, E. M. McKenzie, Gaston A. Hebert.

MEETING PLACE

E. H. Preston, Chairman; G. M. Eckel, T. E. Sanders.

SCIENTIFIC EXHIBIT

A. G. Sullivan, Chairman; F. J. Scully, E. A. Purdum.

INFORMATION

W. M. Blackshare, Chairman; W. G. Klugh, Foster Jarrell.

TRANSPORTATION

O. L. MacLaughlin, Chairman; M. F. Lautman, H. W. Brewer, H. O. Lynch.

COMMERCIAL EXHIBITS

H. King Wade, Chairman; L. G. Martin, H. H. Preston.

ENTERTAINMENT

F. S. Tarleton, Chairman; Chas. H. Lutterloh, O. C. Wenger.

BADGES

Gaston A. Hebert, Chairman; D. B. Stough, D. C. Lee.

GOLF

T. N. Black, Chairman; C. E. Garrett, C. H. Nims, C. S. Moss.

LADIES' ENTERTAINMENT

W. T. Wootton, Chairman.

ANNOUNCEMENTS

REGISTRATION

The registration desk will be located in the Arlington Hotel and open from 8:00 a. m. to 5:00 p. m.

The delegates are requested to register as early as possible, so that the official roll of the House of Delegates may proceed with its business, beginning promptly at 9:30 a. m. Members are also requested to register and receive the official badge and program.

The members of the Woman's Auxiliary and visiting ladies will also register and receive a program and the official badge of their organization.

All meetings except the Memorial Session will be held in the Arlington Hotel.

MEETING OF THE COUNCIL

The Council of the Arkansas Medical Society including the Ex-presidents will meet at noon each day with luncheon in the private dining room, Arlington Hotel, immediately following the adjournment of the morning sessions.

COMMERCIAL EXHIBIT

A number of high-class commercial exhibits will be on display in the Arlington Hotel, near the place of registration, and our members are urged to visit this interesting exhibit.

GOLF

T. N. Black, Chairman.

The Dewell Gann, Jr., Silver Cup will be the prize for high score.

Program

HOUSE OF DELEGATES

First Meeting, Arlington Hotel, May 2, 9:30 A. M.

Meeting called to Order by Will H. Mock, President.

Calling roll of Delegates.

Appointment of Credentials Committee and their report.

Introduction of Fraternal Delegates.

Adoption of Minutes of the Fifty-Seventh Annual Meeting as published in the June, 1932, issue of the Journal of the Arkansas Medical Society.

Appointment of Reference Committee.

President's Address to the House of Delegates.

REPORT OF COMMITTEES

Scientific Program—R. J. Calcote, Chairman.

Scientific Exhibit—Geo. B. Fletcher, Chairman.

Medical Legislation—L. V. Parmley, Chairman.

Health and Public Instruction—C. W. Garrison, Chairman.

Necrology—F. Vinsonhaler, Chairman.

Cancer Control—Dewell Gann, Jr., Chairman.

Constitution and By-Laws—D. A. Rhinehart, Chairman.

Hospitals—W. A. Snodgrass, Chairman.

Publicity—J. A. Foltz, Chairman.

Child Welfare—H. T. Smith, Chairman.

Diseases of the Heart—A. A. Blair, Chairman.

Arrangements—Grayson E. Tarkington, Chairman.

Report of the Council—Dewell Gann, Sr., Chairman.

Report of the State Board of Medical Examiners—S. J. Allbright, Secretary.

Report of the Delegates to the A. M. A.

Report of the Treasurer.

Report of the Secretary.

New Business.

Selection of the Nominating Committee.

Selection to Fill Vacancies on the State Board of Medical Examiners.

(Report to be made at Final General Session).

Vacancies occur in the Second, Third, Sixth and Seventh Congressional Districts.

The members now serving the above districts are: W. T. Lowe, Pine Bluff; A. S. Buchanan, Prescott; Will H. Mock, Prairie Grove, who have served only

one term and are eligible for re-election, and Sam J. Allbright, Searcy, who has served two terms.

Counties comprising these districts are as follows:

Second—Stone, Sharp, Randolph, Lawrence, Fulton, Izard, White, Independence, Cleburne, Jackson, Monroe and Prairie.

Third—Benton, Washington, Madison, Carroll, Newton, Boone, Searcy, Baxter, Marion and Van Buren.

Sixth—Garland, Hot Spring, Saline, Dallas, Grant, Desha, Drew, Cleveland, Lincoln, Jefferson, Arkansas and Lonoke.

Seventh—Hempstead, Clark, Nevada, Columbia, Union, Ouachita, Lafayette, Calhoun, Bradley, Ashley and Chicot.

PROPOSED CHANGES IN THE CONSTITUTION AND BY-LAWS TO BE VOTED ON AT THE HOT SPRINGS MEETING:

Whereas, the annual membership dues of the Arkansas Medical Society are the sum of five and no-100 dollars ($5.00);

Therefore, Be It Resolved, by the Arkansas Medical Society in regular convention assembled to reduce the annual dues to the sum of three and no-100 dollars ($3.00).

Whereas, The Arkansas Medical Society should have a regular and annual audit.

Therefore, Be It Resolved, That a regular and official audit of the business affairs of the Arkansas Medical Society be made annually.

Be It Further Resolved, That findings of said audit be published in the official organ (Arkansas Medical Journal) of the Arkansas Medical Society in the monthly issue not later than one month previous to the regular convention.

Be It Further Resolved, That the President and Councilors of the Arkansas Medical Society be empowered to select said auditor and that his remuneration should not exceed the sum of.....Dollars ($.....) for said services.

SUGGESTED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE ARKANSAS MEDICAL SOCIETY

By D. A. Rhinehart, Chairman

(1) Constitution, Article VIII, Sec. 2, p. 4 to be changed to read as follows:

"The place for holding each annual session shall be decided by the House of Delegates. After conferring with the President and Secretary of the Society, the time for holding each annual meeting shall be decided by the Committee on Arrangements of the component society of the county in which the meeting is to be held."

(This change is suggested because it corresponds with the practice that has been followed for a number of years.)

(2) By Laws, Chapter 1, Sec. 3, p. 7, the first sentence to be changed to read as follows:

"Each member, each member chosen as a delegate, and each quest in attendance at an annual session of the Society shall register in such manner as may be provided by the Secretary, giving his name, address, and the component society of which he is a member."

(This change is also made to correspond with present practices and to permit changes as may be necessary.)

(3) Chap. 1, Sec. 4, p. 8, strike out the first word: "that." After "honorary member" in line 7 change and add "and the component society shall be exempt from payment of the annual assessment for his membership. An honorary member shall have the same privileges as other members."

(The Society has no dues, but it does have assessments, this change is made to clarify this section. It also better defines the status of an honorary member, and will give component societies the right to honor active physicians by such membership.)

(4) Chap. V, Sec. 1, p. 12, strike out the first sentence in this section and substitute:

"Immediately after adjournment of the first meeting of the House of Delegates at each annual session, the delegates from the component societies of each councilor district shall meet, the councilor acting as chairman, and select one delegate from each district to form a Committee on Nominations. This Committee shall consist of ten delegates, one from each councilor district. It shall meet and organize by selecting a chairman and secretary. It shall be. . . ., etc."

(This change is suggested because this is the procedure that is followed in the selection of the nominating committee.)

(5) Same section, last two sentences, change "president" to "president-elect."

(6) Chap. V, Sec. 3, change the last two words "general session" to "annual session."

(This is a clarification of wording. General session is used to designate a general meeting of all members at an annual session, and not to indicate a meeting of the House of Delegates.)

(7) Chap. VI, Sec. 2, a new section:

"The president-elect shall be a member ex-officio of the Council and the House of Delegates without the power of voting. It shall be his duty to assist the president in visiting the component county and the district societies, and to familiarize himself with, and prepare himself for, the performance of his duties when he shall have succeeded to the presidency of the Society."

(I think this new section should be added, for as it now stands, the president-elect has no duties. Are there any others that you think of that should be given him?)

(8) Chap. VI. Change the numbering of the other sections in this chapter, Section 2 to 3, 3 to 4, 4 to 5, and 5 to 6.

(Made necessary by the addition of a new section.)

(9) Chap. VI, Sec. 3, p. 14, in line 6 strike out "of the President Countersigned."

(10) Chap. VII, Sec. 3, p. 17, begin this section with the following:

"The Council shall be the executive body of the House of Delegates and between annual sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws."

(This is already being done and this change gives authorization for it.)

(11) Chap. VIII, Sec. 1, p. 19. This whole chapter re-written as follows: Sec. 1.

"The standing committees of this Society shall be as follows:

1. A Committee on Scientific Work.
2. A Committee on Medical Legislation.
3. A Committee on Health and Public Instruction.
4. A Committee on Medical Education and Hospitals.
5. A Committee on Public Relations.
6. A Committee on Medical Economics.
7. A Committee on Scientific Exhibit.
8. A Committee on Arrangements.

"Unless otherwise provided, these Committees shall be appointed by the President. Each committee shall consist of at least three members. A greater number may be appointed whenever circumstances require a larger committee. As far as practicable, appointments shall be made so that the term of office of a third of the members of each committee shall expire each year. The President and Secretary shall be ex-officio members of all committees.

"Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary shall be one. Subject to the instructions of the House of Delegates, this Committee shall determine the character and scope of the scientific proceedings for each annual session. It shall prepare a scientific program for each annual session, determining the order in which papers and discussions shall be presented.

"Sec. 3. The Committee on Medical Legislation shall consist of seven members. It shall represent the Society in all legislative matters pertaining to public health and medical practice. It shall keep in touch with professional and public opinion and maintain active relations with the Bureau of Legal Medicine and Legislation of the American Medical Association. It shall, at all times, endeavor to shape and guide legislation with a view to securing the best results for the whole people. It shall strive to organize professional influence so as to promote the general good of the community in local, state, and national affairs and elections. During sessions of the General Assembly, it shall keep itself informed as to the bills that are introduced, and shall inform the members of the Society through its Journal or by special bulletin, to the end that legislation inimical to the medical profession and the public shall be defeated, and legislation fostering the interests of public health and medical practice shall be enacted into law."

"Sec. 4. The Committee on Health and Public Instructions shall represent the Society in those affairs having for their object the improvement in Public and personal health, the prevention of epidemics, and the instruction of the people. It shall maintain close relations with the Board of Health, the State Health Officer, and the various health officials, assisting in the adoption of public health programs, the enforcement of sanitary laws, and the promulgation of other health activities of interest to the members of the Society. As occasion demands or when thought advisable, it shall supervise the preparation of articles of timely interest for publication in the newspapers or for broadcasting over the radio for the instruction of the public.

"Sec. 5. "The Committee on Medical Education and Hospitals shall serve this State for the Committee on Medical Education and Hospitals of the American Medical Association, and shall have referred to it all questions pertaining to hospitals and medical education. It shall maintain close reations with the officials and faculty of the University of Arkansas, School of Medicine rendering at all times such assistance as it can in maintaining that institution as a Class A Medical School.

"Sec. 6. The Committee on Public Relations shall have referred to it all questions wherein the medical profession as represented by the Society is called upon for advice, for participation in private or public affairs and projects not coming within the duties outlined for the other committees. It shall be the publicity committee of the Society and shall have charge of all publicity issued in the name of the Society.

"Sec. 7. The Committee on Medical Economics shall serve the State for the council on Medical Economics of the American Medical Association. It shall investigate all matters affecting the economic status of physicians and shall report annually to the House of Delegates such recommendations as may, in its judgment, seem proper.

"Sec. 8. The Committee on Scientific Exhibit shall solicit and collect material from institutions and individual physicians of the State that is of scientific interest. This it shall arrange and exhibit at each annual session. It should particularly strive to obtain material that will more fully illustrate the papers presented in the general meetings of the Society.

"Sec. 9. The Committee on Arrangements shall be appointed by the component society of the county in which the annual session is to be held. With the President and Secretary it shall select the time of the annual session. It shall provide suitable accommodations for the meeting places of the Society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

(12) Chap. IX, Sec. 6. At the end of line 3 add "censoring;" at the end of the section add "A County Society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination.

"That the Council may be aided in rendering just decisions, it is necessary that the By-Laws of each component society provide in detail the routine to be followed in preferring charges and trying any member accused of and tried for any kind of unprofessional conduct."

(13) Chap. IX, Sec. 8, p. 24, change as follows:

"When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the Secretary of his society, without cost, for transmission to the Secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he removes such member shall be considered to be in good standing in the county society from which he was certified and in the State Society to the end of the period (respectively) for which his dues have been paid."

SCIENTIFIC SESSION

Arlington Hotel

Tuesday, May 2, 1:30 P. M.

"The Diagnosis of Bone Tumors"—Dean Lewis, Baltimore, Md.

"A Consideration of the Factors Influencing Mortality in Acute Empyema"—Evarts A. Graham, St. Louis, Mo.

"The Importance of *X*-ray Examination in Diagnosis of the Chest"—D. A. Rhinehart and W. E. Gray, Jr., Little Rock.

Discussion by W. R. Brooksher, Jr., Fort Smith, and J. D. Riley, Booneville.

"Anti-Tuberculosis Progress"—J. D. Riley, Booneville.

Discussion by F. H. Krock, Fort Smith, and H. A. Stroud, Jonesboro.

"Transurethral Prostatic Resection"—H. Fay H. Jones, Little Rock.

Discussion by H. King Wade, Hot Springs.

"Some Tragedies of Surgery"—C. S. Holt and H. F. Krock, Fort Smith.

GENERAL SESSION

Arlington Hotel

Tuesday, May 2, 7:30 P. M.

Calling the Society to Order—Will H. Mock, President.

Invocation—Reverend Roy Hurst, Pastor Central Baptist Church, Hot Springs.

Address of Welcome—Hon. Leo P. McLaughlin, Mayor, City of Hot Springs.

Address of Welcome on Behalf of the Garland County Medical Society—Howard P. Collings, Hot Springs.

Response to the Addresses of Welcome on Behalf of the Arkansas Medical Society—A. S. Buchanan, Prescott.

President's Annual Address—Will H. Mock, Prairie Grove.

Business in Medicine—S. C. Barrow, Shreveport, La.

Motion Picture: "The Great Peril"—Presented by Dewell Gann, Jr., Little Rock.

MEMORIAL SESSION

FIRST PRESBYTERIAN CHURCH

Wednesday, May 3, 8:30 to 9:30 A. M.

Calling Meeting to Order—Will H. Mock, President.

Invocation—Reverend Marion Boggs, Hot Springs.

Music.

Address—F. Vinsonhaler, Chairman, Committee on Necrology.

Music.

Benediction.

DECEASED MEMBERS

Charles Travis Drennen, Hot Springs, died April 26, 1932.

Edward Ralph Cotham, Monticello, died April 30, 1932.

Jesse B. Munn, Vilonia, died May 5, 1932.

James Franklin Crump, Pine Bluff, died May 6, 1932.

Thaddeus E. Cothern, Jonesboro, died May 17, 1932.

Henry Harrison Atkinson, Fordyce, died June 6, 1932.

Everett L. Sullivan, Poughkeepsie, died June 11, 1932.

Isaac N. Freeman, Hot Springs, died June 20, 1932.

George W. Scruggs, Humnoke, died June 21, 1932.

Noble Robert Townsend, Arkadelphia, died June 24, 1932.

David Crockett Walt, Little Rock, died July 22, 1932.

George W. Dickens, Leslie, died August 19, 1932.

Robert Newton Manley, Clarksville, died August 27, 1932.

Gilbert A. Buchanan, Prescott, died September 12, 1932.

Luther J. Luck, Hope, died September 15, 1932.

George W. Murphy, Strong, died September 16, 1932.

John Lester Sims, Harrison, died October 23, 1932.

Robert Blair Corney, Little Rock, died October 28, 1932.

Gustavus Albert Warren, Black Rock, died December 26, 1932.

James Horace Lenow, Little Rock, died December 30, 1932.

Claiborne Jackson March, Fordyce, died January 11, 1933.

Elbert Hays Wilkes, Little Rock, died January 25, 1933.

Robinson C. Dorr, Batesville, died January 29, 1933.

James H. Lindsey, Bentonville, died February 2, 1933.

William L. Hartsell, Warren, died February 4, 1933.

SCIENTIFIC SESSION

Arlington Hotel

Wednesday, May 3, 9:45 A. M.

"Some Phases of Mastoid Disease"—H. Moulton, Fort Smith.

Discussion by F. Vinsonhaler, Little Rock.

"Enucleation; Indications and Contraindications"—Robert Caldwell and R. J. Calcote, Little Rock.

Discussion by O. H. King, Hot Springs.

"The Value of Correctly Fitted Glasses in Modern Ophthalmic Practice"—L. H. Lanier, Texarkana.

Discussion by H. J. G. Koobs, Rogers.

"Observations on Pellagra"—L. H. McDaniel, Tyronza.

SCIENTIFIC SESSION

Arlington Hotel

Wednesday, May 3, 1:30 P. M.

"Chorea"—Philip F. Barbour, Louisville, Ky.

(Newer Conception of Chorea, Relationship to Rheumatism, The Neurologic Basis, New Developments in the Etiology and Treatment).

"The Hormones of the Anterior Pituitary"—H. H. Turner, Oklahoma City, Okla.

"Birth Injuries"—S. B. Hinkle, Little Rock.

Discussion by Don Smith, Hope, and E. J. Munn, El Dorado.

"A New Method of Attempt at Reduction and Immobilization of Compressed Fractures of Vertebral Bodies"—L. V. Parmley, Little Rock.

Discussion by C. S. Holt, Fort Smith.

"Roentgenology as an Aid in Obstetrics"—W. R. Brooksher, Jr., Fort Smith.

Discussion by D. A. Rhinehart, Little Rock, and S. J. Wolfermann, Fort Smith.

"Tumors of the Small Intestine"—H. W. Hundling, Little Rock.

Discussion by M. E. Foster, Fort Smith.

"End Results in Some Unusual Fractures"—W. F. Smith, Little Rock.

Discussion by C. S. Holt, Fort Smith, and L. V. Parmley, Little Rock.

"Whither Are We Drifting"—S. W. Douglas, Eudora.

Discussion by Earle H. Hunt, Clarksville, and J. S. Wilson, Monticello.

SCIENTIFIC SESSION

Arlington Hotel

Thursday, May 4, 8:45 A. M.

Motion Picture—"A New Canti Film"—Presented by Dewell Gann., Jr., Little Rock.

"Evaluation of the Swift Ellis Therapy in the Treatment of Neurosyphilis"—Grayson E. Tarkington, Hot Springs

Discussion by Geo. B. Fletcher, Hot Springs.

"Some Present Advantages and Future Possibilities of Electro-Surgery"—J. A. Foltz, Fort Smith.

"Forceps; Their Indications, Contraindications, Uses and Abuses."—George Kirby Sims, Harrison.

"Irritable Colon"—J. S. Levy, Little Rock.

"A Clinical Consideration of Colitis"—S. J. Wolfermann, Fort Smith.

Discussion of papers of Levy and Wolfermann by C. E. Garrett, Hot Springs and W. G. Eberle, Fort Smith.

"Under-Water Physiotherapy"—L. G. Martin, Hot Springs.

Discussion by V. P. Diederich, Hot Springs.

"The Value of Radio-Activity of Natural Springs Water as a Therapeutic Agent"—F. J. Scully, Hot Springs.

Discussion by Howard Collings and E. A. Purdum, Hot Springs.

FINAL MEETING OF THE HOUSE OF DELEGATES

Arlington Hotel

Thursday, May 4, 1:30 P. M.

Calling Meeting to Order—Will H. Mock, President.
Roll Call.
Report of the Nominating Committee.
Election of Officers:
- President-Elect.
- First Vice-President.
- Second Vice-President.
- Third Vice-President.
- Secretary.
- Treasurer.
- Five Councilors.
- Delegate to the A. M. A.

Report of the Committees.
Further New Business.
Adjournment.

FINAL GENERAL SESSION

(Thursday afternoon, May 4, immediately after adournment of the House of Delegates)

Calling meeting to order—Will H. Mock, President.
Unfinished Business.
Report of the Reference Committee.
Presentation of President L. J. Kosminsky.
Presentation of President-Elect.
New Business.
Selection to Fill Vacancies on the State Board of Medical Examiners.
Selection of Place for Next Meeting.
Adjournment sine die.

WOMAN'S AUXILIARY

TO THE

ARKANSAS MEDICAL SOCIETY

NINTH ANNUAL MEETING

May 2, 3, 4, 1933

HOT SPRINGS, ARKANSAS

Headquarters: Arlington Hotel.

OFFICERS

President—Mrs. P. H. Phillips, Ashdown.
President-Elect—Mrs. B. A. Rhinehart, Little Rock
Vice-President—Mrs. William Hibbitts, Texarkana.
Secretary—Mrs. L. H. Lanier, Texarkana.
Publicity Secretary—Mrs. Curtis Jones, Benton.
Treasurer—Mrs. H. King Wade, Hot Springs.
Parliamentarian—Mrs. H. H. Smith, Fort Smith.
Historian—Mrs. C. W. Garrison, Little Rock.

PAST PRESIDENTS

Mrs. C. W. Garrison, Little Rock
Mrs. Dewell Gann, Sr., Benton
Mrs. C. T. Drennen, Hot Springs
Mrs. T. G. Porter, Hazen
Mrs. Chas. G. Hinkle, Batesville
Mrs. Chas. E. Oates, Little Rock
Mrs. Wm. R. Brooksher, Jr., Fort Smith

ADVISORY COMMITTEE

Dr. S. J. Wolfermann, Fort Smith; Dr. Pat Murphey, Little Rock; Dr. Frank Kirby, Harrison; Dr. F. O. Mahony, El Dorado.

DIRECTORS

(For two years)

Mrs. C. M. John, Stuttgart
Mrs. R. C. Dorr, Batesville

(For one year)

Mrs. J. B. Crawford, Little Rock
Mrs. M. V. Russell, El Dorado

HONOR GUEST

Mrs. A. A. Herold, Shreveport, Louisiana
President Woman's Auxiliary to the
Southern Medical Association.
Mrs. Wm. R. Brooksher, Jr., Fort Smith, Arkansas
Vice-President Woman's Auxiliary to the
American Medical Association

STANDING COMMITTEES

ORGANIZATION

Mrs. William Hibbitts, Texarkana; Mrs. Chas. S. Holt, Fort Smith; Mrs. J. S. Cobb, Clarksville; Mrs. C. E. Park, DeWitt; Mrs. T. M. Fly, Little Rock; Mrs. E. D. Cathey, El Dorado.

STUDENT LOAN FUND

Mrs. Chas. E. Oates, Little Rock; Mrs. J. B. Wharton, El Dorado; Mrs. Earle Hunt, Clarksville; Mrs. H. E. Murry, Texarkana; Mrs. O. J. T. Johnston, Batesville; Mrs. E. B. Swindler, Stuttgart.

CONSTITUTION AND BY-LAWS

Mrs. H. H. Smith, Fort Smith; Mrs. J. M. Hooper, Batesville; Mrs. O. T. Benton, Lonoke; Mrs. T. F. Kittrell, Texarkana; Mrs. T. C. Watson, Benton.

PROGRAM

Mrs. S. A. Collom, Texarkana; Mrs. J. B. Crawford, Little Rock; Mrs. E. T. Bramlitt, Malvern; Mrs. J. M. Proctor, Hot Springs; Mrs. Curtis Jones, Benton.

EDUCATION AND PUBLIC HEALTH

Mrs. Pat Murphey, Little Rock; Mrs. F. O. Mahony, El Dorado; Mrs. A. F. Hoge, Fort Smith; Mrs. W. W. Verser, Harrisburg; Mrs. Dewell Gann, Sr., Benton; Mrs. E. L. Thompson, Hot Springs.

HYGEIA

Mrs. R. R. Kirkpatrick, Texarkana; Mrs. D. A. Rhinehart, Little Rock; Mrs. F. A. Gray, Batesville; Mrs. R. B. Robins, Camden; Mrs. Decker Smith, Texarkana; Mrs. J. W. John, Pine Bluff.

PUBLIC RELATIONS

Mrs. C. G. Hinkle, Batesville; Mrs. Wm. R. Bathurst, Little Rock; Mrs. George Fletcher, Hot Springs; Mrs. R. R. Kirkpatrick, Texarkana; Mrs. W. P. Cooksey, Magnolia.

MEMORIAL

Mrs. E. E. Barlow, Dermott; Mrs. J. T. Robison, Texarkana; Mrs. M. T. Smith, Conway; Mrs. R. C. Kory, Little Rock; Mrs. T. S. Hare, Crawfordsville.

FINANCE

Mrs. D. W. Goldstein, Fort Smith; Mrs. L. J. Kosminsky, Texarkana; Mrs. H. King Wade, Hot Springs.

COUNTY PRESIDENTS

1932—1933

County—Name of President—Address

Arkansas—Mrs. F. B. Swindler, Stuttgart.
Crittenden—Mrs. T. S. Hare, Crawfordsville.
Columbia—Mrs. P. M. Smith, Magnolia.
Faulkner—Mrs. Hugh E. Brooke, Conway
Garland—Mrs. Chas. H. Nims, Hot Springs.
Independence—Mrs. J. M. Hooper, Batesville.
Johnson—Mrs. C. L. Hardgraves, Clarksville.
Jefferson—Mrs. J. W. John, Pine Bluff.
Lonoke-Prairie—Mrs. T. G. Porter, Hazen.
Miller—Mrs. H. E. Murry, Texarkana.
Ouachita—Mrs. R. B. Robins, Camden.
Pope-Yell—Mrs. Robt. H. Hood, Russellville.
Pulaski—Mrs. Pat Murphey, Little Rock.
Sebastian—Mrs. E. C. Moulton, Fort Smith.
Saline—Mrs. Thomas C. Watson, Benton.
Union—Mrs. J. B. Wharton, El Dorado.

Program

TUESDAY, MAY 2

9:00 A. M. Registration, Mezzanine Floor, Arlington Hotel.

10:00 A. M. Executive Board Meeting, Room 224, Arlington Hotel.

OPENING SESSION

Ladies' Parlor, Arlington Hotel
1:30 P. M.

Meeting Called to Order—Mrs. C. H. Nims, President Woman's Auxiliary to the Garland County Medical Society, Hot Springs.

Invocation—Mrs. O. H. King, Hot Springs.

Introduction of Mrs. P. H. Phillips, President of the Woman's Auxiliary to the Arkansas Medical Society.

Address of Welcome—Mrs. F. M. Williams, Hot Springs.

Greetings from the Woman's Auxiliary to the American Medical Association—Mrs. Wm. R. Brooksher, Jr., Vice-President, Fort Smith.

Greetings from the Woman's Auxiliary to the Southern Medical Association—Mrs. A. A. Harold, President, Shreveport, Louisiana.

Response to the Address of Welcome and Greetings—Mrs. Pat Murphey, President Woman's Auxiliary to the Pulaski County Medical Society, Little Rock.

Report of Delegate to the Woman's Auxiliary to the American Medical Association—Mrs. C. E. Oates, North Little Rock.

Report of Delegate to the Woman's Auxiliary to the Southern Medical Association—Mrs. C. W. Garrison, Little Rock.

Reports of State Officers (Limited to five minutes each).

Reports of Standing Committees (Limited to three minutes each).

Announcements.

TEA
4 to 6 P. M.
At the residence of Mrs. A. H. Tribble
1616 Central Avenue.
General Session of the Arkansas Medical Society 8:00 P. M., Arlington Hotel.

All visiting ladies and wives accompanying the doctors attending the State Medical Meeting are invited to attend these meetings, whether members of the Auxiliary or not.

MEMORIAL SESSION

WEDNESDAY, MAY 3
8:30 A. M.
Joint Session with the Members of the State Medical Society
First Presbyterian Church.

(Mrs. E. E. Barlow, Chairman, Committee on Necrology, Woman's Auxiliary.)

Calling Meeting to Order—Will H. Mock, President.
Invocation—Reverend Marion Boggs, Hot Springs.
Music.
Address—F. Vinsonhaler, Chairman, Committee on Necrology.
Music.
Benediction.

GENERAL SESSION

WEDNESDAY, MAY 3
Ladies' Parlor, Arlington Hotel
9:45 A. M.

Call to Order—Mrs. P. H. Phillips, President.
Invocation—Dr. J. D. Hammonds, Pastor First Methodist Church, Hot Springs.
Minutes of Opening Session.
Greetings from the Arkansas Medical Society—Dr. Will H. Mock, President, Prairie Grove.
Recommendations of the Executive Board.
Roll Call and Reports of County Auxiliaries. (Reports limited to five minutes each.)
Round Table Discussion (Fifteen Minutes)—Led by Mrs. B. A. Rhinehart, Little Rock.
Report of Credential Committee.
Report of Special Committees—
Jane Todd Crawford.
Resolutions.
Report of Nominating Committee.
Election of Officers.

DUTCH LUNCHEON
Arlington Hotel—1:00 O'clock
75 cents per plate

Address—Mrs. A. A. Harold, President Woman's Auxiliary to the Southern Medical Association.
Introduction and Installation of New Officers.
New Business.
Reading of Minutes.
Adjournment.

Reception and Ball Honoring the President of the Arkansas Medical Society
Arlington Hotel—9:00 P. M.

Thursday, May 4th—10:00 A. M.
EXECUTIVE BOARD MEETING
Arlington Hotel, Room 224
Mrs. B. A. Rhinehart, President, Presiding.

Officers Woman's Auxiliary
TO THE
GARLAND COUNTY MEDICAL SOCIETY

HOT SPRINGS

President ..... Mrs. Chas. H. Nims
Vice-President ..... Mrs. Grayson E. Tarkington
Recording Secretary ..... Mrs. M. F. Lautman
Corresponding Secretary ..... Mrs. Chas. H. Lutterloh
Treasurer ..... Mrs. W. G. Klugh

LOCAL COMMITTEES

ENTERTAINMENT
Mrs. A. H. Tribble, Mrs. H. H. Preston, Mrs. W. G. Klugh, Mrs. O. H King, Mrs. P. Z. Browne.

PUBLICITY
Mrs. F. M. Williams

AUTOMOBILES
Mrs. H. K. Wright Mrs. G. M. Eckel

DECORATIONS
Mrs. O. E. Biggs Mrs. W. L. Snider

MUSIC
Mrs. Howell Brewer Mrs. George Fletcher

COURTESY
Mrs. W. T. Wootton Mrs. J. B. Strachan
Mrs. W. F. Porter

REGISTRATION AND CREDENTIALS
Mrs. G. E. Tarkington, Mrs. M. F. Lautman, Mrs. C. E. Garratt, Mrs. E. M. McKenzie, Mrs. W. M. Blackshare.

CONSTITUTION AND BY-LAWS

CONSTITUTION

Article I—Name

The name of this organization shall be the Woman's Auxiliary of the Arkansas Medical Society.

Article II—Object

The object of this Auxiliary shall be to extend the aims of the medical profession through the wives of the doctors to various women's organizations which look to advancement in health and education; to assist in entertaining at State, district and county society meetings; to promote acquaintance among doctors' families, that local unity and harmony may be increased.

Article III—Membership

1. The active members shall be the wives of doctors belonging to the Arkansas Medical Society.

2. The widow of a deceased member of the Arkansas Medical Society may become an associate member of this organization.

3. Honorary membership may be conferred at the discretion of the Auxiliary upon recommendation of the Executive Board.

Article IV—Officers

The officers of this organization shall be a President, a President-Elect, a Vice-President, a Secretary, a Publicity Secretary, a Treasurer, and four Directors.

Article V—Executive Board

1. These officers together with the chairmen of the standing committees, the county presidents or their appointees, and the outgoing State President, shall constitute the Executive Board.

2. The Executive Board shall have power and authority to conduct the affairs of the organization during the interim between its meetings, but it shall not undertake new plans without consulting the State Medical Society, provided no action taken by the organization be modified and no debt or liability except for current expenses be incurred.

Article VI—Elections

1. The officers, with the exception of the secretary and directors, shall be elected by ballot at the annual meeting to serve for one year or until their successor is elected. The Secretary shall be appointed by the President for one year; the directors shall be elected by ballot for a term of two years, two being elected at each annual meeting.

2. A Nominating Committee consisting of five members, no more than two of whom shall be members of the Executive Board, shall be appointed by the Executive Board at a meeting before each annual meeting. It shall be the duty of this committee to nominate a candidate for each office to be filled at the next annual meeting. The committee shall send a report of these nominations to the Secretary, who shall send a copy to each County Auxiliary in the call for the annual meeting.

3. A vacancy occurring in an office other than that of Secretary, shall be filled by the Executive Board for the unexpired term.

Article VII—Meetings

1. The meetings of this organization shall be held at the same time and place as the State Medical Society.

2. A regular meeting of the board shall be held immediately before and after each annual meeting of the Auxiliary. Meetings may be called by the President, and shall be called upon the written request of three members of the board.

Article VIII—Delegates

1. Each County Auxiliary shall be entitled to send to each annual meeting, its President, two delegates and their alternates for every twenty-five paid-up members or major fraction thereof, each Auxiliary being entitled to at least one delegate and alternate, irrespective of the number of members. These accredited delegates with the members of the Executive Board shall form the voting body. Each delegate shall present the report of dues of her County Auxiliary as her credentials.

2. There shall be appointed by the Executive Board as many delegates to the Southern Medical Association and American Medical Association Auxiliary meetings as their constitutions provide.

Article IX—Dues

The membership dues to the Woman's Auxiliary to the Arkansas Medical Society shall be $1.00 per capita, from which the necessary amount will be taken to pay dues to the American Medical Association Auxiliary. Dues should be paid through the County Auxiliaries, where one exists, not later than March 1st.

Article X—County Auxiliaries

1. A Woman's Auxiliary to the County Medical Society shall be organized, if possible, in each county of the State that has a Medical Society, provided such organization is approved by the County Medical Society. The object of a county Auxiliary shall be to promote the objects and interests of the State Woman's Auxiliary and to do such other work as its County Medical Society may from time to time assign it to do. Each County Auxiliary is authorized to make its own rules for the transaction of its business and the admittance of its members, provided such rules do not conflict with the rules of this organization or of the American Medical Association Auxiliary.

2. Each County Auxiliary shall send a report to the State Secretary on or before April 1 of each year, which shall contain the names and addresses of its officers and chairmen of standing committees, and the number of its paid-up members.

3. Each County Auxiliary shall, insofar as practicable, provide for county standing committees to correspond to the State standing committees. It shall be the duty of the county committees to carry out the plan submitted by the State committees.

Article XI—Amendments

This constitution may be amended at any regular meeting of the Auxiliary, provided written notice has been sent each County Auxiliary not less than two months prior to said meeting.

BY-LAWS

1. *Duties of Officers.* (a) The duties of the President, Vice-President, Secretary and Treasurer shall be those which usually devolve upon such officers.

(b) The President-Elect shall become President the following year.

(c) No officer or committee shall undertake any plan or obligate the Auxiliary in any way unless said plans have been passed on by the Executive Board, which in turn shall consult the State Medical Society.

2. *Committees.* (a) The President and the Executive Board shall have power to create such committees as become necessary to promote the welfare of the Auxiliary.

(b) The standing committees shall be: (1) Organization, (2) Finance, (3) Constitution and By-Laws, (4) Memorial, and (5) Public Relations.

3. *Meetings.* All meetings of Auxiliary and the Executive Board shall be conducted according to the regular order of business and parliamentary law which usually governs the conduct of such meetings.

4. *Quorum.* (a) Five members of the Executive Board shall constitute a quorum.

(b) Ten voting members shall constitute a quorum at any general meeting of the organization.

5. *Amendment.* These by-laws may be amended at any meeting of the Executive Board or at the annual meeting of the Auxiliary by a two-thirds vote of the members present, provided such amendments do not conflict with the spirit of the constitution.

PHYSICIANS' DIRECTORY

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Original Articles

CHOREA*

PHILIP F. BARBOUR, M. D., Louisville, Ky.

Certain well known diseases which have in a sense seemed stabilized become suddenly the center of investigation because of new developments either in the etiology or the treatment. This has happened in the case of chorea or St. Vitus' dance, but there is so much still that is unknown or hypothetical that it affords great opportunity for further research. Sydenham was the first accurately to describe the syndrome which has been known from his time as Sydenham's chorea.

Its symptoms are well known and the diagnosis is relatively simple though there seems to be a tendency amongst neurologists to include under this head a great number of diseases characterized by incoordination many of which are rare and not essentially related to the true Sydenham's chorea. Such spastic movements as occur in ties, the myotonias, athetosis, and the myoclonias, offer little difficulty in differentiation. The moot points in chorea are the theories as to the causation, the relationship to rheumatism and endocarditis, the neurologic basis and the newer methods of treatment.

The assumption that chorea is a neurological manifestation of rheumatism is gaining as our concept of rheumatism has grown. The frequent coincidence of rheumatism and chorea is shown by all statistics. If we limit our concept of rheumatism to those who have either endocarditis or a frank arthritis we should still have a large number of cases of the two occurring together. If to these we add those cases in which rheumatism has preceded or succeeded closely the attack of chorea the percentage would be greatly increased. But those who treat many children know that they do not present the marked symptoms of the adult type of the disease. The vague growing pains of children which are so frequently overlooked or minimized hold the menace of a severe endocarditis. If all of these are computed we can reasonably estimate the coincidence of rheumatism with chorea at 75 per cent or more.

Though there is not yet a complete accord in accepting focal infection as the whole explanation of rheumatism there are too many dramatic sequels to the removal of the true focal point for one to doubt that there is a genuine relationship. The search for hidden foci in the rheumatic case is often difficult and elusive, which may explain why we do not always find the focal lesion in chorea also. But more intensive study of choreic cases is successful often in finding such a focus. Perhaps some are confused by the fact that the removal of a focus does not always immediately result in improvement, a fact which also applies to cases of rheumatism. The removal of such foci when found should be undertaken only after sound and experienced judgment has determined that fresh absorption will not be induced by the operative procedure. Many fail to recall that the damage done to nerve or other fibre may persist even after the cause has been removed.

The foci which may be found in children comprise the tonsils and adenoids, teeth, sinuses, middle ear and mastoid. The decision as to whether the tonsils are infected is dependent upon several factors. The size does not determine, for the large tonsil may be emptied by contraction of the pharyngeal muscles. The small buried tonsil is often most toxic. Enlargement of the anterior cervical glands which drain the tonsil area is best proof of the absorption of toxins. If the openings of the follicles show red or the surface of the tonsils is distorted by scar tissue then we are justified in their removal. Other foci are affected by the tonsils; poor drainage of the

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held at Hot Springs National Park, May 2, 3, 4, 1933.

post nares favors infection of the sinuses, besides the natural extension of infection from diseased adenoid tissue. Coburn asserts that the post pharyngeal wall is an active seat of bacterial infection, though it must be difficult to be sure that the infectious material is located directly in the lymphoid follicles and has not drained down from the post nasal spaces above. Sinuses are becoming increasingly important as our methods of examination are perfected. Here persistent clearing of the throat or enlargement of the deep cervical glands posterior to the sternocleido-mastoid will arouse our suspicions. To these may added in the adolescent the gall bladder, the chronic appendix, the prostate, the tubes and ovaries, the gastro-intestinal tract, and especially the perianal region, as possible foci.

The theory of bacterial infection is practically accepted even in cases where a definite organism cannot be isolated. There were many types of hemolytic streptococci grown before the Dicks were able to prove the specific organism of scarlet fever. Coburn and Pauli only recently have isolated from the pharyngeal wall of patients ill with rheumatism six varieties of hemolytic streptococci which could be proved out by complement fixation, precipitin and agglutinin reactions and yet one strain of the six was found in 70 per cent of the cases.

There have been a number of different organisms described by different investigators as found in chorea but they do not agree amongst themselves nor has it yet been explained how these organisms which usually are quite virulent are attenuated to the milder rheumatic involvements. In other words, the specific organism has not yet been isolated. Blood tests are being refined so that we are finding definite proofs of infection in diseases which heretofore have not been so proven. Cecil calls attention to the sedimentation test and to the Schilling hemagram with the shift to the left in chronic rheumatism. Most of the rheumatic cases, however, do not show choreic symptoms but the great majority of choreic patients will have rheumatic symptoms which would indicate that some one species of the hemolytic streptococcens carries the potential nerve disorder, or perhaps the explanation may be that there must be certain predisposing conditions in the patient before chorea will develop.

There seems to be a neurologic basis for the involvement of the nervous system in chorea. It is about two and a half times as frequent in girls as in boys. It attacks most often between the ages of ten to fifteen years when the general physical strain is the greatest. The seasonal prevalence is most marked in the early spring, which is true in this country of rheumatism also, and may be attributed to the long continued strain of school work and the nervous apprehension of the coming examinations. While chorea is not directly hereditary, family histories of alcoholism and other neuroses are noticeably more prevalent. Some of the most alarming cases of chorea have followed almost immediately upon fright or other sudden severe emotional strain, especially at about the beginning of puberty. Sometimes there may be hysteric phenomena aggravating the choreic incoordination. These are particularly distressing to the family because of the violence of the movements and there is a real danger of exhaustion aside from the endocarditis which is fairly sure to enter into the case.

Chorea attacking the pregnant woman is very frequently fatal and always rebellious to treatment. Premature delivery may be a necessary life saving measure.

Pathologists have found a meningo-encephalitis in the fatal cases. It would seem improbable that such inflammatory changes could have occurred in the ordinary cases which have recovered. There may have been muscular weakness and uncontrollable movements of the tongue so that deglutition is difficult. Speech may be jerky and the desire to talk in abeyance. There is often mental hebetude and an indifference to environment, but there is such a complete return to the normal eventually that it is difficult to believe that there has been a pathologic injury. Certain pathologists advocate the theory of small emboli from the heart lodging in the motor centers. However, this has not been proven and chorea does occur without any involvement of the endocardium or the heart valves, from which the emboli would have had to come.

The explanation has been offered that the nervous excitation is of an allergic type, simulating the supposed allergic phenomenon of the swollen joints in acute rheumatism. Opposed to this, however, is the persistence of the nervous symptoms in comparison with the two to three days involvement of the joints.

It is not inconceivable that toxins may circulate through the brain irritating delicate tissues without a true inflammatory lesion. That such an irritant has an affinity for the fibrous tissue of the heart is proven by the involvement of the heart structures.

The treatment of chorea with arsenic has been the mainstay for a century. It is slow and unsatisfactory. Probably it secures relief by building up resistance to the infection. In the absence of exact knowledge of the cause of this disease, we can only guess at the reason for the results.

The salicylates and acid acetylosalicylic are unquestionally of help in the early stages if combined with sufficient alkalies to render the urine faintly alkaline and should be continued as long as there are active focal symptoms.

Phenylethylhydantoin is being widely exploited and there have been some reports which are excessively favorable. It is given in rather large doses, 0.3 to 0.5 gm., three times a day until fever or a morbilliform rash or both arise near the ninth day, after which marked improvement is said to occur. While a number of fairly prompt cures have been recorded, there has been the usual number of recurrences after various lengths of time. The chief objection to this treatment is that a number of deaths have followed its administration. The rash and the fever are probably caused by the phenyl radical, but substitutes for the phenyl have not shown any curative powers.

The hyperthermia treatment has seemed in some hands to have shortened the course of the disease. The method is too new to have been thoroughly mastered. Deaths have resulted, or in our experience rather severe delirium and nervous symptoms have proven alarming. It is suggested that fever will favor the establishment by the system of immunity to many infections. A safer way to develop immunity is by intravenous injections of nonspecific proteins. Typhoid vaccine because the dosage can be controlled very accurately has proven very valuable. The increasing doses should not be introduced at less than three-day intervals. The patient's own serum has been separated from the blood and reinjected with gratifying improvement in the hands of some.

Various mercurials, arsenicals, and endocrine products have had a brief day of approval. Quite satisfactory results have been secured in a limited number of cases by using a hemolytic streptococcus bacteriophage. It will probably not be long before definite accurate and successful therapy will be assured.

For the wildly excited type, with a delirium of movement, when the sides of the bed must be padded to prevent bad bruising or even broken bones, and obtaining no rest even during sleep the most satisfactory palliative is Trional in 2 to 3 grain doses every three hours until physical quiet is secured.

Whatever medication is used, rest in bed for several weeks is most valuable and will shorten the course of the disease by fully one-half. Visits by playmates, reading of exciting books or the playing of games should be taboo as far as possible.

Rest in bed is also of the greatest aid in lessening the strain upon the heart and to that extent preventing the development of an organic heart lesion. Chorea will prove fatal very rarely but over 93 per cent of the fatal cases have been found to have had an organic heart lesion.

The necessity then of eliminating those focal points which predispose to endocarditis is of the utmost importance. For time alone will cure the chorea if no fatal complication arises.

Certain unhappy experiences of the writer have emphasized the significance of the points which have been enunciated. Their observance has proven most helpful.

PRACTICAL POINTS IN VARIOUS MANIFESTATIONS OF MALARIA*

J. H. McCurry, M. D., Cash

"I have been thinking," wrote a young man to his affinity, "about what happened last night, as I held you tightly in my arms and our lips blended and you said you had never done a thing like that before, and, of course, I believed you, but I cannot help wondering from which of your ancestors you inherited such a helluva lot of experience."

Our worthy secretary seems to think I have inherited quite a lot of experience from some where, as he was determined I write on this

*Read before the Craighead-Poinsett County Medical Society, April 6, 1933.

subject. I may not prove as adept as the young lady for there is so many phases, so many angles, so much worthless and unreliable data in regard to malaria, that it is a very great problem to select proven essential practical points and weave them into the jig-saw puzzle of practicability.

Definition

Malaria is a febrile disease, formerly supposed to be due to poisonous eminations from damp ground, but now known to be caused by a blood parasite, which gains access to the blood through the bite of mosquitoes of the genus anopheles.

Mode of Infection

A mother took her small son to an incubator to see some eggs hatch, finally the mother said, "isn't it wonderful, dear, how the little chicks get out of the shell?" "That's nothing," answered the boy, "what I can't figure out is how they got in there."

"How the apple got into the dumpling," puzzled one man. How the hematozoa gains entrance into the blood of the malarial subject puzzled many.

As now understood, the anopheles mosquito draws the blood from the malarial subject, in which fluid are contained the protozoa of Laveran; after having been taken into the digestive organs of the mosquito, changes in the ingested blood soon begin to take place. There is in a few days development of flagella which penetrates the coat of the digestive tracts of the mosquito, and within about seven days the spores of malaria are taken up by the absorbent vessels, and stand in the salivary glands of the insect. These glands are two in number and are situated on either side of the insect's throat, from which little ducts communicate with the proboscis. Now the very act of biting propel the fluid contained into the cellular tissue of the human being, from which they are transmitted into the blood plasma. These spores as hyaline bodies, after a time penetrate the red corpuscles, and at once enter upon their destructive work of deterioration.

No one can successfully deny the mode of infection, as we have an abundance of evidence from authoratively proven facts that the anopheles mosquito is the only known disseminator of the malarial fevers.

No less an authority that Charles F. Craig claims that there is even no congenital malaria. He claims that the maternal placenta acts as an impassable barrier to the plasmodium, and the unborn foetus cannot become infected with these parasites.

Etiology and Discovery of the Plasmodium

All atuhorities are now agreed that malaria results from the introduction into the blood of the specific micro-organism termed the Haemamoeba, or plasmodium malaria.

In 1880 Laveran, a native of Paris, France, announced the discovery of a parasite in the blood of malarial fever patients. He says: "My first researches date from 1878; at that time I was on duty in the hospital of Bone, in Algeria, and in a great number of my patients were suffering with malarial fever. I had occasion to perform autopsies on several subjects of pernicious malaria and to study melanemia, which had already been observed, but was not considered as a constant change in malaria, nor as a specific lesion in that disease.

I was struck by the singular appearance of granulations of black pigment, especially in the liver and in the cerebral vessels, and I endeavored to follow, in the blood of patient suffering with malarial fever, the study of the formation of pigment, I found in the blood leucocytes charged with pigment, already seen by other observers, but besides melaniferous leucocytes spherical bodies, varying in size, pigmented, endowed with ameboid motion, and pigmented crescentic bodies attracted my attention. I supposed at that time that these were parasites. In 1880, at the military hospital of Constantine, I discovered, besides the spherical pigmented bodies, in the blood of a malarial patient filiform elements resembling flagella, which writhed with great vivacity and displaced the neighboring corpuscles. From then I had no further doubt as to the parasitic nature of these elements which I had found in the blood."

Laveran's hematozoan has been studied by many eminent observers, among whom were Golgi, Marchiafava, Celli abroad; in our own country by Councilman, Osler, Koplic, James, Thayer, Hewetson and many other able men, all of whom confirmed his discovery, and Osler says: "So far as I know, not a single observer who has had the necessary training and the material at his command has failed to demonstrate the existence of these parasites."

Malaria On the Decline

Malaria is perceptibly on the decline, due to the advanced knowledge of the cause, better methods of sanitation, prevention and treatment. This information enabling all concerned to more successfully combat and prevent its development.

If we closely observe hygienic rules and strictly adhere to known prophylactic measures we may preserve our health in almost any part of the world, for much that has been attributed to climatic conditions are really due to other causes. As ample proof of the above statement I refer you to the crowning achievement of the American occupation of Panama under the wise direction of our own Colonel Gorgas of the Medical Corps of the United States Army.

In our county of Craighead back in 1898 and for several years after, it was very common to see malaria in its worst forms. Enlarged spleens and malarial cachexia were observed daily and quite frequently we were compelled to treat pernicious malaria in all its manifestations, and hemoglobinuria, or "blackwater fever" was seen and discussed by physicians more often than appendicitis is at present. There were very few screens then in the rural districts. Then the endemic-index was so great that an Anopheles was almost sure to get the infection from most any person bitten, now the index is so low that very few carriers can be found, hence, very few infected mosquitoes.

Diagnosis

Scientist say, "The Maya civilization, perfected by an intelligent tribe of Indians of that name, who built the great ruined cities of Yucatan was destroyed by malaria. A wit said, "that he had often wondered what shook down the temples."

The shaking propensities of some forms are very great. In fact they out rival a hula hula dancer's proclivities for shaking, even when that dame's grass skirt accidentally catches afire. But malaria is by no means the only condition accompanied with a cold, hot and sweating stages, and one or two of these may be wanting in malaria. Abscess of the liver, gall-bladder diseases, tuberculosis, and numerous other diseases may exhibit temperature charts closely resembling that of malaria.

It is especially in septic conditions that mistakes are most often made. A noted surgeon has said that he has rarely seen a case of abscess of the liver that had not been drenched with quinine.

There are four sources from which information may be drawn to make a diagnosis of malaria. From the history, from the symptoms, from the examination of the blood, and from the effects of quinine upon the symptoms.

I will not bore you by trying to explain the above four methods, but will ask your kind indulgence to consider a few points to be remembered in regard to malaria, that I formulated in 1910. To wit, that the mosquito is the carrier and not the cause.

That a malarial chill very rarely occurs at night.

That chronic malaria and hook-worm are similar in appearance.

That tuberculosis in its early stage is similar in its course of malaria.

That some cases of yellow fever closely resemble the so-called bilious remittent fever.

That a cold, hot and sweating stage associated with aching and a feeling of general lassitude with perverted slimy taste, is indicative of malaria.

That pernicious fever may be mistaken for uremic or diabetic coma, sunstroke, meningitis, tetanus, epilepsy, cholera or opium poisoning, and strongly resembles surgical shock.

That remittent or estivo-autumnal fever is very often confused with typhoid fever and quite frequently tries the diagnostic skill even of those most familiar with the symptoms of these two fevers.

That a correct diagnosis must rest upon the surroundings, history, physical and prevailing conditions, therapeutic test and the examination of the blood.

That as a rule the proper prophylactic and hygienic preeautions coupled with the indicated remedial agents at the proper time will effect a cure in every ease.

Pernicious Malaria

The plumber who had been called to do some work in the bathroom rang the bell, and as it happened, both the master and the mistress of the house came to the door. As they stood in the hall, the husband who was very methodical said, "Before we go into the bathroom, I wish to acquaint you with the trouble." Whereupon the plumber extended his hand to the mistress and said, "Good morning mum, I am very glad to meeteha."

I have been several times in the presence of some of the more severe manifestations of malaria when I needed no introduction to acquaint me with the gravity of the condition. And instead of being elated and saying, "I am very glad to meet you," I have more often been forced and grieved to say "May the Lord have mercy on your soul, good bye."

There are very few pathological conditions that carry a more alarming, a more dangerous or a more fatal termination than does a previously nontreated case of pernicious malaria that is not seen until the comatose condition has developed. The prognosis is extremely grave.

It should be distinctly understood that there is no species which produces only pernicious forms of malaria, but that the same species which causes the mildest infections is also capable of causing rapidly fatal forms. Any of the species of malarial plasmodia may give rise to pernicious symptoms, but the vast majority of fatal cases of malarial fever are due to the tertian aestivo-autumnal plasmodium. Or there can be two or more species in the blood of the same patient. The peripheral blood may show very few numbers of these parasites or they may be numerous. In the brain they may be found in hordes, even to the occlusion of the small vessels, or they may be entirely absent in this area.

The number of plasmodium present in any given case must have great influence in the production of pernicious symptoms, and it has been definitely proven that in pernicious infections the plasmodium are always more numerous than they are in mild infections.

Why do certain cases of malarial infection develop pernicious and fatal symptoms? Craig says, "As yet our knowledge is incomplete, but the individual susceptibility to the infection; certain pre-existing diseases of the viscera; external conditions, as regards locality, exposure, and poverty; and the species and number of the infecting plasmodia, all undoubtedly help to explain the occurrence of such cases."

"Although we have no reliable data at present concerning the malarial toxin, it is but reasonable to suppose that a more powerful toxin is elaborated in the pernicious infections, or better, that a greater amount is produced because of the increase in the number of plasmodia."

Quinine Fastness

When there is complications of disease in malaria, parasites may persist under heroic treatment. Even when large doses of quinine are given.

But in fact, there should be no heroic treatment especially so in the comatose type we should give small doses intravenously every two or three hours until able to swallow and retain what is given. Large doses in asthenic patients quite frequently causes death. It has been noted that an alarming drop in blood pressure occurred after fifteen grains of quinine had been given intravenously. But, "If you give small doses and repeat them you have no trouble." Quinine destroys the plasmodium in the minute quantity of one part to twenty thousands parts of water.

Dr. Wm. Krauss says, "Many cases of comatose and other pernicious malarias are allowed to end fatally; partly because we fail to make a proper diagnosis, partly because we do the wrong things. The one great wrong is to give immense doses of quinine intravenously. All you can do with quinine is to prevent the invasion of more red blood corpuscles. It is the harm the malaria has done that you have to consider. In such cases certain vascular areas are completely shut off and the quinine does no good. If you give alkalies you open up these areas and according to Sinton, "You also facilitate absorption." Krauss also says, "I think an intravenous injection of sodium bicarbonate opens up the blocked vessels and allows the quinine to have more effect. One thing to remember is to give these patients alkalies even if you do not do anything else."

Mercury

The effects of mercury were formally explained almost altogether by its stimulating action on the liver, causing an increased flow of bile. And produced its beneficial effects in that way.

Now it is shown by the teachings of Endocrinology that it does not stimulate the flow of bile, but rather retards it.

SaJous says, "The various salts of mercury owe their therapeutic value to the energy with which they stimulate the test organ. The immunizing process is most active in the liver, an action which becomes manifest when sufficiently large doses of mercury to produce purgation are given."

Mercurial purgatives do not as generally believed, produce their effects by increasing the flow of bile—which is a mere epiphenomenon when it occurs—but by increasing the germ and poison-destroying properties of the hepatic blood.

The green stools produced are rich in biliverdin, that is, adrenoxidase, or auto-antitoxin. It produces its effect by powerfully stimulating the adrenal glands.

Relapsing Malaria

A banker in a small town renowned for his lack of generosity, had his shoes shined. When they were finished he stepped down and fished around in his pockets and finally drew forth a dime. "Here you are, boy," he said, "I thought I had a nickle for a tip but I can't find it." "Look some mo' boss," the shine boy replied, "Cause if you ever had it you've still got it."

So common are the recurrences in malaria that a prevalent belief is that "once a victim of malaria always a sufferer from the disease."

While unfounded, recurrences often do persist for months and sometimes for years. They are most common and persistent in the estivo-autumnal infections as would be expected from the greater resistance of these infections to treatment.

Sims has estimated the greatest number of adult parasites which the body can endure without symptoms as about two billion.

Latency and relapses were formally explained upon the theory that so long as the parasites remained below a certain level of a sexual reproduction the disease was latent, and when the parasites exceeded in number this level a relapse occurred.

It is probable that brief periods of latency may be thus explained especially in persons possessing a relative immunity, but it is evident that this is not a common mode, particularly of relapses at long intervals. Since the asexual cycle is known to wear out spontaneously after certain periods.

These relapses at long intervals is supposed to be explained by parthenogenesis or virginal reproduction. After the schizonts have perished, while the microgametocytes do not persist long, the macrogametes remain for indefinite periods. They may sporulate more or less regularly, causing paroxysm at intervals of about seven days or multiples thereof, or may lie dormant until aroused into reproductive activity by exposure to some exciting cause.

It is highly probable that the parthenogenetic cycle of reproduction is conducted almost altogether in the visceral circulation, particularly in the spleen. As evidence of this may be cited the outbreak of malaria following cold douching, electrical stimulation, and trauma of the spleenic region.

Recently Schaudinn in an excellent study of plasmodium vivax, stated that recurrences are due to parthenogenesis of the macrogametes which are not fertilized by the microgametes, and remain in the blood of the human host. After a certain period of time these macrogametes liberate schizonts which penetrate the erythrocytes, undergo schizogony and thus produce a relapse. This process is completed in from nine to twelve days, and according to Zieman and others, agrees with the period in which relapses are most frequent.

Some authors do not agree with the above theory of latency, but explains its recurrence by intracorpuscular conjugation.

Thus Craig says, "As a result of my studies, which cover a period of nearly seven years, I have become convinced that intracorpuscular conjugation is not an accidental occurrence of no essential importance in the life history of the malarial plasmodia, but is a process which is most essential and one that occurs invariably in all acute infections in which quinine has not been given at such a stage as to prevent its occurrence. In this process I believe we have the true explanation of latency and recurrence, and that when it does not occur the malarial infection disappears.

This mode first advanced by Celli is, confirmed as you see above by Craig and is considered the most logical by other authorities.

Quinine

Bridget rushed up to the immigration officer and said, "The top of the morning to you, Pat, I have lost my passport, what am I to do?"

Pat says, "Glad to see you, Bridget, sure I can fix that for an old friend." And this is what he wrote—"This will let you know that Bridget McGinnis had a foin character and reputation when she left the old country, but she lost it aboard the ship coming over." Signed—Patrick O'Malley.

Quinine furnishes the best illustration known to therapeutics of a true specific, yet there are cases of malaria which quinine does not cure. It seems to have lost its reputation, especially so in the chronic form. It is claimed that if quinine be given in proper dosage, when the earliest manifestation of symptoms appear at the onset of a primary attaek, a cure may be expected within a few days; and few or no crescents will have time to develop, as they require twice as long as the schizonts to reach maturity. If treatment be delayed until several sporulations have occurred, gametocytes develop in large numbers; and under such conditions the patients are prone to become highly infective to mosquitoes. In chronic cases the defensive agents of the body are able to control, but not eradicate, the parasites; and gametocytes continue to develop in small numbers. Under these conditions, the infected individuals are not highly infeetive to mosquitoes; but during a relapse, when the patient's resistance is lowered from any cause such as fatigue, exposure to wet or cold, an injury or intercurrent diseases, and there is a recrudescence of fever indicating many sporulating parasites, the patients become more infective to mosquitoes. It is then that relapses occur.

It is becoming inereasingly apparent that quinine therapy alone is not the solution of the cure of malaria. Quinine will destroy some forms of the plasmodium, but it is "the universal opinion of all observers that crescents remain unchanged after the most persistent administration of quinine, and that the therapy is incapable of playing even a prophylactic role, in that relapses occur whether or not quinine is exhibited in the apyretie interval."

It is very humiliating to the physician, to have these relapses occur in his practice. Unfair, unjust, inconvenient and costly to the patient to be compelled to suffer from them.

I am sure that all concerned will hail with delight any remedy that will assist in eradicating this evil.

From my limited experience alone I am unable to enlighten you on the following most excellent substitutes for quinine, but from this "limited experience" and the amount of literature I have had access to and consulted I believe "the solution of the cure of malaria" has arrived.

I refer to plasmochin and atabrine. Plasmochin has been employed successfully several years and was found to be the only remedy that would definitely affect the gametes.

Knowles studied mieroscopically the destructive action of plasmochin on the crescents of estivo-autumnal malaria. Within twenty-four hours of commencing its administration the crescents become swollen, rounded and irregular in outline with breaking up of chromatin, and in forty-eight hours they were no longer recognizable. The administration of plasmochin in doses of one-sixth grain daily for six days was sufficient to eradicate all crescents even when the infestation was very heavy.

Manson of London says, "The effects upon the gametes was striking, but as the action upon the subtertian schizonts was not entirely satisfactory, he resorted to plasmochin and quinine in all types of malarial infection. In 18 benign tertian and 11 subtertian cases, the parasites disappeared from the blood stream after an average amount of 13. 1-2 plasmochin compound tablets, while with pure quinine crescents sometimes persisted for a month. A rapid reduction in the size of the spleen was noted. It is stated that the effect of any drug upon the crescents, which are admittedly the most resistent of the human malarial parasites, can be taken as an index of its efficacy. In this respect it has been shown that plasmochin in combination with small doses of quinine appears to have a mueh stronger parasitotropic action than either drug administered singly. Plasmochin compound exerts a selective action upon the gametes of subtertian and benign tertian."

Malaret used Plasmochin in 400 cases, administering four tablets daily for five days. He believes that a combination of plasmochin and quinine will probably furnish the ideal specific that will sound the death knell of malaria.

The compound tablets called chinoplasmin contains 1-12 grain plasmochin hydrochloride, with 2. 1-2 grs. quinine sulph. The adult dose is two tablets three or four times a day. Best given after meals as it sometimes causes cramping when administered on an empty stomach. It has caused eyanosis to susceptible individuals.

ATABRINE

Father, to nurse, "Is it a him or a her?" Nurse, "It's a them."

The Winthrope Chemical Company seem to have out-rivaled their former chemical offspring, by creating atabrine, a companion or rather a twin to plasmoehin. If the published reports are trne the auxiliary aetion of the two agents furnish us with almost an ideal remedy. If properly administered before malignant tendencies develop.

The first test to determine the therapeutic value of atabrine were made on paretie persons who had been infeeted with tertian malaria by direct inoculation into the blood. It was found that the optimal daily amount was 4. 1-2 grains given in three divided doses. A eomplete eure was obtained with a total dosage of 13. 1-2 grains.

Atabrine was then tried in numerous eases of tertian, qnartan, and subquartan malaria in many parts of the world. From the published reports the following reports may be formulated.

Atabrine exerts a destruetive effeet upon the schizonts of all forms of malaria.

It rapidly destroys the gametes of tertian and quantan malaria, but exerts no destructive aetion upon the gametes of tropieal or subtertian malaria. Henee, in this type of malaria, atabrine should be eombined with plasmoehin.

The duration of treatment is much shorter than with quinine. A five-day eourse is often suffieient to effeet a eure.

The optimal total dose of atabrine for adults is 22.1-2 grains, in daily doses of 4.1-2 grains on five conseeutive days, or in daily doses of 3 grains on eight conseeutive days.

Aeute splenomegaly is favorably influeneed by atabrine, as is also relatively ehronie splenie enlargement in children

The general good toleranee is shown by the faet that it has been used in eases of blaekwater fever without reeurrenee of hemoglobinuria so eommon after the use of quinine. It has also been found to be well borne in eases of quinine idiosynerasy. The only by-effeet to whieh attention has been particularly direeted is a yellowish diseoloration and not to any disturbanee of the liver funetion. It has been observed especially in very anemie patients after prolonged administration, but usually disappears in a few days or weeks, depending upon its intensity. Abdominal pain has been oeeasionally noted in eombined treatment with atabrine and plasmoehin and appears to be due to plasmochin, which sometimes gives rise to this symptom.

Aeeording to statements made by all investigators, atabrine aets both on the schizonts and the gametes of tertian and quartan malaria.

The temperature is usually redueed to normal in two or three days after 9 to 13.1-2 grains. The schizonts of both forms disappear from the peripheral blood on an average within three days after 13.1-2 grains.

Some observers have found that the gametes of tartian malaria circulate longer in the blood than the schizonts, but are not generally to be deteeted after four days following the administration of eighteen grains of atabrine with plasmochin.

Numerous Remedies

Judge, "I needs perteetion," exelaimed Mose, "Is's gone done got a unanimous letter that says, 'Nigger, let mah ehickens alone.'"

Judge: "Why protection? Leave the chiekens alone."

Mose: "How's I gwin to know whose chickens to leave alone?"

There is so many remedies now advoeated to use in malaria, that it is a therapeutie riddle to determine whieh one to use and whieh one to "leave alone."

Quinine, plasmochin, atabrine, mereury, eaeodylate of sodium, and iron, neosalvaran, stovarsol and other arsenieal, sodium hyposulphite and a few more ehemieals, balneo and other hydrotherapeutic measures. Light and eleetrical therapy have such definite and elear eut indieations and have proved so valuable in these conditions that it behooves us to select our remedial agents therefrom.

FAULTS OF OUR FATHERS*

A. G. Emerson, M. D., Bald Knob

There are in the United States today ninety-six senators drawing salaries of ten thousand dollars each, plus "perquisites of offiee" to equal nearly half that sum.

There are four hundred and thirty-five eongressmen drawing salaries of nine thousand dollars each, plus "perquisites of offiee" to equal nearly half that sum.

These six hundred lawmakers of our government are today doling out hundreds of

*Read before the White County Medical Society, March 2, 1933.

millions of dollars to bankrupt railroads with which to pay the presidents of these defunct concerns their salaries of seventy, to one hundred, to one hundred and thirty-five thousand dollars annually.

There are forty-eight governors of states, and state legislators who are legion. There are innumerable postmaster and mayors and county and city officials too ignorant to keep an ordinary set of books, or perform routine clerical work of any kind, all of whom now draw enormous salaries, and pay themselves promptly from public funds.

While this is being done the counties and incorporate villages are without funds with which to employ county or city physicians. Therefore the family physicians—the country doctors—are expected to care for, and furnish medicine for nine of every ten families who seek their services, and to do this without pay or any expectation of pay. One of ten families pay today. The others demand free medical care.

Such is the situation. The doctor has done fairly well as a charitable institution for the past few years, but the end is in sight. The worm must turn or be ignominiously buried in the paupers' field while billions are being paid to excess and inept officials of our overgoverned land.

These things should not be. Some one is seriously at fault. Perhaps several generations are at fault. In fact, we think they are, we among the rest.

It is not the purpose of this paper to find fault with the founders of our country, but there is much evidence that Washington and Franklin and their associates were intensely human, and being human, were limited in vision. They were victims of prejudice, subject to pressure of circumstances, as humanity is and evermore shall be.

We, the people, suffer grievious wrongs today because we were taught and blindly believe that the patriarchs of America—the lawmakers of yesterday—were infallible, endowed with supernatural wisdom. This is not true. They were ordinary men. Statesmen today are identical with those of early days in both intellect and integrity, yet none but the senators themselves would suggest that our present lawmakers are without fault. Our fathers also had their faults from which we suffer now.

The ignorant idolatrous hero worship and blind adherence to precedent has brought America to the brink of ruin. Faults of our fathers have been burnished and brightened by trickery and tradition until they sparkle brilliantly as virtues. Hence each succeeding generation has followed in the faulty footpath of those gone before. This is the cause of our impending doom. We have not recognized the fact that our fathers had their faults.

It is time that we realize the limitations of all men.

It is high time that we think and act for ourselves and for posterity. Men of Bible times or the days of the American revolution had no conception of the circumstances that confront the world today. Yet we follow blindly in the path blazed out for pioneers. Our laws and customs are obsolete because we worship the supposed infallibility of our fathers. We fail to recognize and to correct their faults.

We will refer to only two outstanding faults of our fathers—the two that have brought the country doctor to the gulf of obliteration, that have forced him to ride rapidly and desolately toward the ever-nearing and inevitable "end of the trail."

The family physician is through. He is finished, unless per chance he raises his voice and arms and energy in self-defense and exerts the untold power of preservation that is his. A power unconquerable if he will use it even as Hitler has used his. It is time to act. There is no time to lose if we, the country doctors, are not to be wiped out.

The first, and most important fault of our fathers was their presumption that city, state and county officers are necessary to government by the people. Their second great mistake was in their failure to recognize that public health is fully as essential as public education.

Concerning the first great fault of our fathers—that of permitting the growth of irregular, unequal states such as existed when the founders of the Thirteen "hung together" in order to be not "hung separately"—this fault rests with those in authority at the time of the Louisiana purchase, and when the Ohio Company was formed to generate new states. Authorities at that time should have foreseen the unwieldy machinery of too many states, and the future destructive burdens of

state, county, and city governments with exhorbitant salaries paid to officials whose work is done by clerks paid by such governments. These officials are but high-priced figureheads.

Our fathers failed to see the trend toward present-day catastrophe, and now that we see it, because we feel the consequences so exquisitely, it becomes our fault if we meekly yield and go down to ignominious defeat—starved to death in the midst of plenty.

The salvation of the country doctor, and incidentally of the United States, depends on very early action along aggressive lines.

We should do away with the states and divide the domain of the United States into fifteen senatorial districts of equal geographical size. This would give us thirty senators. Then elect only sixty congressmen. One hundred chosen spokesmen are enough for any land.

Let county and city governments be dispensed with. Let the township and city ward elect a supervisor annually, subject to recall, and let him be the local link to Federal government. In other words, wipe out officialdom. Eradicate corporate "presidents" and "chairmen" everywhere. Let lowly clerks continue to manage matters under Federal supervision at lower wages than clerks receive today.

Let ten thousand dollars be the highest salary paid in this country, and that to the national president. Let five thousand be the most that any other person may receive annually in either salary or income. Let twenty-five thousand dollars be the most that any person may acquire and retain.

This plan sounds puerile and impossible I must admit, but that is because we are like sheep. We follow the leader that leaps to the slaughter. We think there is no other way. We are creatures of custom. It seems impossible to change. But if such standards were established, a salary of three thousand dollars would be affluent, and when one man made his limit, he would take pride in aiding others to the heights. The trouble with our system is there is no top. The sky is the limit. Our glory is in gold. With a limit placed on wealth we would begin to glory in accomplishment.

As to education and health, let both be managed alike. Both are national necessities. Let there be a hospital beside every schoolhouse, with doctors, dentists, and teachers licensed by the government and not by states; each paid a salary as teachers are today. Let education and the care of health be extended equally to everyone.

A child should be required to begin its course in health eight months before its birth. It should be clothed and fed and furnished books and treated for all physical defects until maturity by the government of which it is a vital part. We claim to be a free and equal nation—then let us equalize the chances of the child.

The day is rapidly approaching when health problems will become a problem for the public and not for the threadbare family physician to attempt to solve in his distressing poverty.

We, the family doctors, could bring about this sadly needed change if we would unite and demand that sane and scientific standards be established in sustaining public health.

We could and should, but will we do so? The answer from the doctors is an emphatic "No!"

This negative opinion of physicians is unfortunate. It retards advance. The people are not satisfied. State medicine is coming and it may be best to have it forced upon us in some haphazard way. We seem to be too blind to help to start it scientifically.

DISCUSSION

The discussion indicates a reticence on the part of those present to express their opinion, but for the courteous criticism I am grateful.

It is stated here that the poor have no more right to first-class medical care than they have to high-priced shoes. This statement is not in accord with either the American principle of equal opportunity, nor with the ethics of the medical profession. The statement is, however, absolutely true as pertains to care of patients by country doctors. It is incumbent on the country doctor to apply this principle. It is self preservation for him. Any doctor who gives as much time to the payless as he must give to those who pay, in order to hold their patronage, will be flat broke in sixty days. That is the curse of the fee system. This means that many people suffer for want of medical care. This is not as it should be.

That part of the paper pertaining to economics may seem not proper for medical discussion, but if intelligent people do not change conditions, the unintelligent will do so and that will be not so well for us. It would be well for all physicians to interest themselves in all affairs of government.

It is stated here in kindly terms that the paper is mildly socialistic, the speaker saying he is a Democrat. I may say I am a Republican, but neither Democrats nor Republicans can protect the people until high-salaried officials are cast

out and individual fortunes reduced a thousand fold.

State medicine is an indefinite term and stands in disrepute. "Health tax" would state more nearly what I mean as a provision for proper care of all and proper pay to physicians.

It is stated here that people are being pauperized by government aid and by the liberality of the physicians. We will not dwell on that. We do wish to stress that government is for the people and if a plan of health tax were worked out, every person could be cared for properly for less than is paid today by a minority of the people for inferior service and injurious drugs.

There should be a first aid station and lying-in chamber for each community; a class A hospital in every town of three thousand or more; surgeons, physicians, dentists, nurses, paid a salary; and conscientious, scientific work demanded from all. That is what I mean by state medicine. It will be here soon. It must come rapidly in order to meet a rapidly crystalizing public demand. We should fall in line and not retard this progress.

Evidence of the efficiency of salary service is seen in the remarkable health, and marvelous surgical procedure and scientific advance in the care of the armies of the World War. Evidence is plain in the percentage of preservation and recovery provided by physicians in veterans' hospitals.

There is abundant evidence in the skilled and efficient care of patients by railway surgeons and contract doctors in the lumber camps and mines of Arkansas.

None of the thousands of individuals benefited by such salary service have been cuddled and chucked under the chin and tucked in bed with the overstressed "personal touch" we hear so much about in defense of the fee system. The percentage of benefit through salary service far exceeds that shown in private practice.

We hear much about the great sacrifice and astounding discoveries of Finley, Carroll and Lazear. Who were these outstanding men of medical progress? Were they busy practitioners depending on the fees they might receive for sustenance? No, they were salary men who devoted their talents to the scientific service for which they were paid. The scientific progress made by men in private practice is, to say the least, quite nominal, nor do over-busy, stage-set men who catch the common fancy produce the best results.

We, the doctors, suffer from delusions of grandeur when we speak of private practice and "confidential relations." These arguments are relics of sentimental days. They have no bearing in scientific truth. Facts will not warrant the pernicious fee system to which we stick tenaciously.

Pasteur, the founder of modern medicine, did not make his discoveries because he was paid by private patrons. We are wrong in the premise we pursue.

And radium, the thing from which our biggest men have made their largest fees; did famous doctors discover radium between the time consumed collecting their gigantic fees? No, a modest little Miss on a meager salary gave radium to the world.

And so it goes through all the progress of the science of medicine. The salaried laboratory workers build the structure stone by stone, and men acquiring fabulous fees become the salesmen who astound the world.

A San Francisco salary lady just recently introduced the Methylene treatment for carbon monoxide poisoning; and more recently Dr. Hans Zinsser, a salary professor of Harvard, announced a serum for typhus fever. Thus on and on plain facts point toward replacement of all fees by stipulated salaries.

No greater proof of this necessity is needed than two of the twelve "Principles and Policies of Organized Medicine" published in the February, 1933, issue of the Journal of The Arkansas Medical Society.

Paragraph 3: "Medicine's first responsibility must be to see that its services are available to all men."

Paragraph 11: "The medical profession asks remuneration sufficient for reasonable comfort for the practitioner and for his family."

Today a large proportion of our population are without adequate medical care.

Today a majority of physicians lack remuneration sufficient for reasonable comfort for themselves and families.

How are we to reconcile and readjust these two unjust conditions with the "principles" of our profession? How may the family physician live in reasonable comfort and his services be available to all men?

A logical way would be to promote public health precisely as we do the public schools. Let a national tax sustain them both. Let both be national in scope, without restrictions by the State and district code. Grant equal opportunities to all to gain an education and to enjoy scientific measures to secure the best of health.

THE MILWAUKEE SESSION

As shown by the material published elsewhere in this issue, the Milwaukee session will be extraordinary in many ways. The conditions under which the meeting is held are ideal so far as concerns hotels, the auditorium, the exhibit space, and similar material arrangements. Next, the session is in a city closely adjacent to Chicago, where the Century of Progress will open on May 27. Thus, physicians from a distance will have an opportunity to attend both events and to give their families an opportunity to see the Century of Progress Exposition, if they wish, while the physician attends the sessions of the American Medical Association. The scientific program and the scientific exhibit indicate a high point in scientific quality seldom reached by medical gatherings. In view of the fact that the railroad rates offered are the lowest made in many years, there is reason to believe that in point of numbers also the Milwaukee session will set an unusual figure for medical meetings in the Midwest. Every physician should consider the opportunity to attend as a means of securing graduate instruction in concentrated form.—*Jour. A. M. A., May* 13, 1933.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Auxiliary Notes

New officers elected by the Woman's Auxiliary to the Arkansas Medical Society at the ninth annual session in Hot Springs, May 3, were: Mrs. William Hibbetts of Texarkana, president-elect; Mrs. H. King Wade of Hot Springs, first vice-president; Mrs. Pierre Redman of Fort Smith, second vice-president; Mrs. E. A. Callahan, DeValls Bluff, third vice-president; Mrs. R. B. Robins, Camden, fourth vice-president; Mrs. L. D. Reagan, Little Rock, secretary; Mrs. Anderson Watkins, Little Rock, treasurer; Mrs. Marcus T. Smith, Conway, parliamentarian, and Mrs. C. W. Garrison, Little Rock, historian. Mrs. B. A. Rhinehart, Little Rock, president-elect for the past year, assumed office at the installation ceremony.

Editorial

THE HOT SPRINGS MEETING

The annual meeting of the Arkansas Medical Society was held in the Arlington Hotel, May 2, 3, 4, at Hot Springs National Park.

The attendance exceeded all expectations. 406 physicians registered and over half of this number remained throughout the entire three-day session.

Every essayist on the splendidly prepared program was present. Every chairman of the various committees was present. The scientific papers were extremely interesting and the opening discussions were well prepared and instructive. The President regretted that time did not permit more general discussion. All of our distinguished guests who were on the program were on hand. There were no disappointments; nothing went awry.

Not only the local physicians, but their good wives as well, are entitled to the warmest praise and appreciation for the kindnesses literally showered on the visitors.

Officers Elected

President, L. J. Kosminsky, Texarkana; president-elect, F. O. Mahony, El Dorado; first vice-president, Dewell Gann, Sr., Benton; second vice-president, J. H. Fowler, Harrison; third vice-president, John E. McGuire, Piggott; treasurer, R. J. Calcote, Little Rock; secretary, Wm. R. Bathurst, Little Rock. All councilors were re-elected with the exception of Dr. Gann, who was honored with a vice-presidency. His place in the seventh district was filled by Dr. George B. Fletcher of Hot Springs.

A resolution was adopted indorsing the report of the Committee on Constitution and By-Laws as printed in the April issue of the Journal.

The Council recommended to the House of Delegates that the secretary accept $3.00 for dues in 1934, even though the By-Laws state the dues shall be $5.00.

The report of the secretary showed a membership of 956, a decrease of only fifty-seven over the previous year.

The treasurer's report shows a cash balance of $6,570.62, with but few unpaid bills.

Little Rock was selected as the place of meeting for 1934.

Personal and News Items

Dr. H. Fay H. Jones of Little Rock was the guest speaker on the program of the Sebastian County Medical Society at their meeting, April 11. His subject was "Hematuria."

Dr. B. D. Luck of Pine Bluff was appointed by Governor Futrell to succeed Dr. M. D. Ogden of Little Rock as a member of the State Board of Nurse Examiners.

We regret to announce the deaths of Dr. W. E. Stallings, formerly of Newport, May 6, 1933, and Dr. C. K. Campbell of Dover, May 6, 1933. Both Dr. Stallings and Dr. Campbell are former members of the Arkansas Medical Society.

According to Dr. C. W. Garrison, State Health Officer, the total number of malaria deaths reported for 1931 was 499 compared to the previous three-year average of 742, representing a reduction of 33 per cent over the three-year average or a death rate of 27 per 100,000.

Twenty-eight applicants took the semi-annual examinations before the State examining board of the Arkansas Medical Society, May 9 and 10. Members of the board were: W. W. Verser, Harrisburg, president; A. S. Buchanan, Prescott, vice-president; Sam Allbright, Searcy, secretary; Wm. A. Snodgrass, Little Rock; W. T. Lowe, Pine Bluff; W. W. York, Ashdown, and Will H. Mock, Prairie Grove.

Officers for 1933 of the Pulaski County Medical Society are: President, S. C. Fulmer; vice-president, Paul L. Mahoney; secretary, Ernest Harl White; treasurer, Wm. R. Bathurst. Committees: Scientific Program, E. H. White, chairman, O. C. Melson, J. S. Levy. Public Health and Legislation: M. E. McCaskill, chairman, Glenn M. Holmes, Joe F. Shuffield. Social Entertainment: Byron A. Bennett, chairman, K. W. Cosgrove, Bryce Cummins. Credentials: H. A. Higgins, chairman, S. B. Hinkle, G. W. Reagan. Printing, Finance and Claims: B. A. Rhinehart, chairman, D. T. Hyatt, Paul M. Fulmer. Board of Censors: Pat Murphey, chairman, J. H. Sanderlin, H. Fay H. Jones. Public Relations: D. A. Rhinehart, chairman, C. W. Garrison, M. J. Kilbury, H. W. Hundling, L. V. Parmley.

The First Councilor District Medical Society, composed of Clay, Craighead, Crittenden, Greene, Lawrence, Mississippi, Poinsett and Randolph counties, held its spring meeting, May 24, 1933, at Piggott. Officers of the society are: President, C. M. Harwell, Osceola; vice-president, J. E. McGuire, Piggott; secretary-treasurer, F. D. Smith, Blytheville; councilor, W. M. Majors, Paragould.

Program for the morning session, which convened at 10:00 o'clock, was as follows:

Invocation by Rev. B. L. Willford.

Address of Welcome by Hon. E. G. Ward.

Response to the Address of Welcome by Dr. A. M. Washburn.

Scientific Program:

"Asthma" by Dr. J. C. Land, Walnut Ridge.

"Uterine Bleeding" by Dr. W. T. Black, Memphis.

Councilor's Address.

Afternoon Session:

"A Discussion of Some Points in the Treatment of Heart Disease" by Dr. Lyle Motley, Memphis.

"Obstetric Complications as Treated by the General Practitioner" by Dr. J. B. Futrell, Rector.

New and Unfinished Business.

Selection of Place for Spring 1934 meeting.

The organization of the American Board of Dermatology and Syphilology at the 1931 meeting of the American Dermatological Association, a committee was appointed to determine the advisability of forming an American Board for the certification of competent practitioners in the specialty similar to boards created by the opthalmologists, the otolaryngologists and by the obstetricians and gynecologists. A similar committee was appointed by the Section of Dermatology and Syphilology of the American Medical Association at its meeting in the same year. A favorable report was rendered by each committee at the 1932 meeting each of the above organizations.

The American Dermatological Association voted to accept the report of this committee, and the president appointed the following four members to represent the association on the newly formed American Board of Derma-

tology and Syphilology:

Jay F. Schamberg, Philadelphia, Pa.
Howard Fox, New York, N. Y.
Harold N. Cole, Cleveland, Ohio.
Arthur W. Stillians, Chicago, Illinois.

The Section on Dermatology and Syphilology of the American Medical Association also accepted the report of its committee and the chairman appointed the following members to serve as its representatives:

Howard Morrow, San Francisco, Cal.
William H. Mook, St. Louis, Mo.
George M. MacKee, New York, N. Y.
C. Guy Lane, Boston, Mass.

A certificate will be issued to each candidate who meets the requirements of the board, to the effect that the holder of the certificate has had adequate training in Dermatology and Syphilology and has successfully fulfilled the requirements of the board.

Obituary

ISOM, ALPHONSO — Dr. A. Isom of Dumas died April 24, 1933. He was a native of Rison. He was born August 17, 1885, son of the late Joel B. and Nancy Ann Isom. After attending school at Rison and Pine Bluff, was graduated from the Washington University, St. Louis.

In 1914, Dr. Isom established the Isom Clinic at Dumas. During the World War, he was in the front line trenches as a surgeon, and was discharged from the army with the rank of major, U. S. Medical Corps.

He is survived by his widow, who was formerly Miss Nell Joslyn; a two-year-old daughter, Phyllis, and an uncle W. F. Spiller of Rison.

WILSON, JOHN FELIX—Dr. J. F. Wilson of Dalark died January 15, 1933. Dr. Wilson was born March 2, 1871, in Arkadelphia, Alabama, moving to Arkansas with his parents when he was five years old. His father was a physician and practiced in Dalark many years. Dr. Wilson received his education, both literary and medical, at the University of Arkansas, graduating in medicine in 1895. He later received a degree in medicine at the Chicago Policlinic.

Dr. Wilson was married to Miss Ida Florence Harris, in 1907, who survives him. He is also survived by a brother, Wallace D. Wilson of Colorado Springs, Colorado; two sisters, Mrs. Lyde Stone of Dalark and Mrs. Jamie Haddock of Jacksonville, Florida.

KENNERLEY, JAMES H.—Dr. J. H. Kennerley of Batesville, died May 13, 1933. He was born in 1847, in Cowan, Tennessee, moving to Independence County in 1871, where he had practiced medicine ever since.

His literary education was obtained at Sewanee College, Winchester, Tenn. Later, he attended Medical College at Louisville, Kentucky. His professional training was supplemented by post-graduate courses in St. Louis and New York.

When Newark was founded Dr. Kennerley moved to that place and erected its first residence. Later he moved to Sulphur Rock for a short time before moving to Batesville in 1901.

Dr. Kennerley served as a member of the State Board of Medical Examiners. He also served as Independence County health officer and city health officer for Batesville, and Arkansas Masonic home physician.

He is survived by his wife; two sons, H. M. Kennerley, Batesville, and Dr. R. C. Kennerley of Bearden.

County Societies

ASHLEY COUNTY

(Reported by J. W. Simpson, Sec.)

The Ashley County Medical Society met in the courthouse at Hamburg, March 10. Dr. W. S. Norman, the president, being absent the meeting was presided over by Dr. C. E. Spivey.

"Pellagra" was the subject for discussion. A number of cases were reported in the county.

Miss Erle Chambers was a visitor, and discussed incipient tuberculosis and asked that the doctors make a more thorough examination of their patients and have them treated in time.

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Book Reviews

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1932. Cloth. Price, $1.00. Pp. 104. Chicago: American Medical Association.

The Council on Pharmacy and Chemistry still carries on its work of informing the medical profession concerning the new medicinal products brought out by the various manufacturers of pharmaceuticals. This volume contains the reports on products considered and rejected by the council during the past year. Among the reports of special interest are: Amertan, an unoriginal mixture of tannic acid and merthiolate in a water soluble jelly, marketed under a proprietary, uninforming name; Antiopin, a mixture of indefinite composition offered under a nondescriptive, therapeutically suggestive name and marketed in a way that may foster the drug habit; Eubetin, another insulin substitute for oral administration marketed under a proprietary uninforming name with unwarranted claims; Ferro-Copral, a mixture of saccharinated ferric oxide, manganese citrate and copper proteinate proposed for use in the treatment of pernicious anemia and marketed under a proprietary name with unwarranted therapeutic claims; Hepatic P. A. F., a liver preparation proposed for intravenous use and marketed under a proprietary and insufficiently descriptive name with no satisfactory evidence of the safety of its recommended intravenous use; Bi-So-Dol, an unscientific "alkalinizing" mixture offered under an uninforming proprietary name with exaggerated and unwarranted claims of therapeutic usefulness; Gan-Aiden, consisting mainly of the well known ethyl amino-benzoate (benzocaine), a preparation of undeclared composition marketed under a noninforming, proprietary name; Myodin, Subidin, and Sanguiodin, unscientific preparations of iodine marketed with unwarranted claims and indefinite, incorrect statements of composition, under proprietary uninforming names and Tonikum-Roche (Now Elixir Arsylen Compositum-Roche), a "shot-gun" proprietary "tonic" marketed with misleading therapeutic claims.

Besides the reports on rejected articles, the volume contains "Preliminary" and "Special" reports of exceptional timeliness and value: The preliminary report on Thorotrast, a colloidal thorium dioxide preparation proposed for use in retrograde pyelography and for roentgen visualization of the liver and spleen by intravenous administration, is an excellent example of this class of reports. The articles on Nirvanol and Triethanolamine are also interesting and effective preliminary reports. Among the "special" reports those on Sulpharsphenamine and Mercurochrome are outstanding. Each report definitively clears up the present status of the drug concerned, the former, on the basis of a questionnaire circulated among leading syphilologists, and the latter on the basis of independent bacteriologic investigations, done by consultants of the council.

New and Nonofficial Remedies, 1933, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1933. Cloth. Price, postpaid, $1.50. Pp. 498; lvi. Chicago: American Medical Association.

The annual editions of this volume contain all that the busy physician needs to know concerning the newer preparations which he is daily importuned by the detail men of the pharmaceutical manufacturers to use. The remedies listed and described here have been examined and found acceptable by the Council on Pharmacy and Chemistry, the deliberative body charged by the American Medical Association with the performance of this service for the practitioner, has not the time or means to make the determinations for himself. Among the new preparations admitted during the past year are: Trichlorethylene-Calco, an inhalation anesthetic proposed especially for use in trigeminal neuralgia; Nostal, an additional barbituric acid compound; Decholin and Decholin Sodium, bile salt preparations for use in functual insufficiency of the liver, the sodium salt being suitable for intravenous use when necessary; Biliposol, Bismo-Cymol, and Iodobismitol, bismuth compounds for use in obtaining the systemic effects of bismuth, especially in syphilis; Triphal, a gold salt proposed for use in the treatment of lupus erythematosus; a number of improved liver preparations for use in the treatment of pernicious anemia; two halibut liver oil preparations of high vitamin A and vitamin D content; and Pentnucleotide, the sodium salts of the pentose nucleotides derived from the ribonucleic acid of yeast, proposed for use in infectious conditions accompanied by a leukopenia or neutropenia.

The book contains general articles, descriptive of the classification under which the vari-

ous drugs are listed. According to the preface, more or less thorough-going revisions have been made of the articles: Arsenic Compounds; Dyes, Iodin Compounds; Liver and Stomach Preparations; Radium and Radium Salts and Silver Preparations.

International Clinics. Volume 1, Forty-third Series. March, 1933. Edited by Louis Hamman, M. D. Octavo. 305 pages. 16 Illustrations, one Colored Plate. Published by J. B. Lippincott Company, Philadelphia, Montreal and London. Cloth, $3.00.

Volume 1 of the Forty-third Series of INTERNATIONAL CLINICS appears under a new editor and with a new list of collaborators, all prominent medical names of this country, Canada and abroad. The object of International Clinics is to bring to the practitioner in the form of clinics, clinical lectures and reviews the latest information about current medical thought and practice. The present volume accomplishes this object in a satisfactory way. The first article, by Bloomfield of Stanford University discusses the indications for the use of special tests by the practitioner. Those physicians who are perplexed by the innumerable special tests which are so commonly performed and so widely advocated will be encouraged to learn that a prominent teacher of medicine considers them often superfluous and sometimes misleading.

Wolferth and Margolies contribute an excellent article on gallop rhythm of the heart. The subject is systematically discussed and current views are supported or corrected by personal observations.

The treatment of burns by recent methods is described by Penick. Special attention is paid to the use of gential violet.

Burnam, the well-known radiologist, reviews the various diseases for which radium treatment has been given and attempts an evaluation of the benefits coming from the use of radium as a therapeutic agent.

Woods contributes an excellent article on tuberculosis of the eye developing the modern viewpoint that persuades us to believe that tuberculosis of the eye occurs far more commonly than was formerly thought.

Fecal fistulae is admirably presented by Dean Lewis and his associate, Penick.

The clinical application of experimental studies on intestinal obstruction is pointed out by Stone and Owings.

Blalock considers shock in the same manner that Stone and Owings present intestinal obstruction. The pathological physiology is reviewed and the experimental data, to which Blalock has himself made valuable contributions, are discussed.

Allen has an article on diseases of the peripheral arteries.

Hamman and Rich report a clinical pathological conference held at the Johns Hopkins Hospital. In forewords they point out the relation of clinical medicine to pathology and of pathology to clinical medicine.

Finally an instructive review of recent progress in medicine is contributed by Cantarow and of recent progress in surgery by Balfour and Harper.

The contributions to this volume come from various fields of medicine and every one will certainly find a discussion of something in which he is interested.